

Sequence Listing

<110> Desnoyers,Luc
Eaton,Dan L.
Goddard,Audrey
Godowski,Paul J.
Gurney,Austin L.
Pan,James
Stewart,Timothy A.
Watanabe,Colin K.
Wood,William I.
Zhang,Zemin

<120> SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
ACIDS ENCODING THE SAME

<130> P3030R1C7

<150> 60/085579

<151> 1998-05-15

<150> 60/112514

<151> 1998-12-15

<150> 60/113300

<151> 1998-12-22

<150> 60/113430

<151> 1998-12-23

<150> 60/113605

<151> 1998-12-23

<150> 60/113621

<151> 1998-12-23

<150> 60/114140

<151> 1998-12-23

<150> 60/115552

<151> 1999-01-12

<150> 60/116843

<151> 1999-01-22

<151> 1999-04-05

<150> 60/129122

<151> 1999-04-13

<150> 60/130359

<151> 1999-04-21

<150> 60/131270

<151> 1999-04-27

<150> 60/131272

<151> 1999-04-27

<150> 60/131291

<151> 1999-04-27

<150> 60/132371

<151> 1999-05-04

<150> 60/132379

<151> 1999-05-04

<150> 60/132383

<151> 1999-05-04

<150> 60/135750

<151> 1999-05-25

<150> 60/138166

<151> 1999-06-08

<150> 60/144791

<151> 1999-07-20

<150> 60/146970

<151> 1999-08-03

<150> 60/162506

<151> 1999-10-29

<150> 09/311832

<151> 1999-05-14

<150> 09/380142

<151> 1999-08-25

<150> 09/644848

<151> 2000-08-22

<150> 09/747259

<151> 2000-12-20

<150> 09/816744

<151> 2001-03-22

<150> 09/854208

<151> 2001-05-10

<150> 09/854280
<151> 2001-05-10

<150> 09/874503
<151> 2001-06-05

<150> 09/869599
<151> 2001-06-29

<150> 09/908,827
<151> 2001-07-18

<150> PCT/US99/10733
<151> 1999-05-14

<150> PCT/US99/28551
<151> 1999-12-02

<150> PCT/US99/30720
<151> 1999-12-22

<150> PCT/US00/05601
<151> 2000-03-01

<150> PCT/US00/05841
<151> 2000-03-02

<150> PCT/US00/14042
<151> 2000-05-22

<150> PCT/US00/15264
<151> 2000-06-02

<150> PCT/US00/23522
<151> 2000-08-23

<150> PCT/US00/23328
<151> 2000-08-24

<150> PCT/US00/32678
<151> 2000-12-01

<150> PCT/US00/34956
<151> 2000-12-20

<150> PCT/US01/06520
<151> 2001-02-28

<150> PCT/US01/17800
<151> 2001-06-01

<150> PCT/US01/19692
<151> 2001-06-20

<150> PCT/US01/21066
<151> 2001-06-29

<150> PCT/US01/21735

<151> 2001-07-09

<160> 80

<210> 1

<211> 1712

<212> DNA

<213> Homo Sapien

<400> 1

ggcatctgcc cgaggagacc acgctcctgg agctctgctg tcttctcagg 50
gagactctga ggctctgttg agaatcatgc tttggaggca gtcactctat 100
tggcaactgc tggctttggt tttcctccct ttttgccctgt gtcaagatga 150
atacatggag tctccacaaa cgggaggact acccccagac tgcagtaagt 200
gttgtcatgg agactacagc tttcgaggct accaaggccc ccctgggcca 250
ccggggccctc ctggcattcc aggaaaccat ggaaacaatg gcaacaatgg 300
agccactggt catgaaggag ccaaagggtga gaaggggcgac aaagggtgacc 350
tggggccctcg aggggagcgg gggcagcatg gccccaaagg agagaagggc 400
taccggggga ttccaccaga acttcagatt gcattcatgg cttctctggc 450
aaccacttcc agcaatcaga acagtgggat tatcttcagc agtggttgaga 500
ccaacattgg aaacttcttt gatgtcatga ctggtagatt tggggcccca 550
gtatcaggty tgtattttctt caccttcagc atgatgaagc atgaggatgt 600
tgaggaagtg tatgtgtacc ttatgcacaa tggcaacaca gtcttcagca 650
tgtacagcta tgaaatgaag ggcaaatcag atacatccag caatcatgct 700
gtgctgaagc tagccaaagg ggatgagggt tggctgcgaa tgggcaatgg 750
cgctctccat ggggaccacc aacgcttctc cacctttgca ggattcctgc 800
tctttgaaac taagtaaata tatgactaga atagctccac tttggggaag 850
acttgtagct gagctgattt gttacgatct gaggaacatt aaagttgagg 900
gttttacatt gctgtattca aaaaattatt ggttgcaatg ttgttcacgc 950
tacaggtaaa ccaataatgt tggacaattc aggggctcag aagaatcaac 1000
cacaaaatag tcttctcaga tgaccttgac taatatactc agcatcttta 1050
tcaactctttc cttggcacct aaaagataat tctcctctga cgcagggttg 1100
aaatattttt ttctatcaca gaagtcattt gcaaagaatt ttgactactc 1150
tgcttttaat ttaataaccag ttttcaggaa ccctgaagt tttaagttca 1200

ttattcttta taacatttga gagaatcgga tgtagtgata tgacagggct 1250
 ggggcaagaa caggggcact agctgcctta ttagctaatt tagtgcctc 1300
 cgtgttcagc ttagcctttg accctttcct tttgatccac aaaatacatt 1350
 aaaactctga attcacatac aatgctatit taaagtcaat agatttttagc 1400
 tataaagtgc ttgaccagta atgtggttgt aatttttgtgt atgttcccc 1450
 acatcgcccc caacttcgga tgtgggggtca ggaggttgag gttcactatt 1500
 aacaaatgtc ataaatatct catagaggta cagtgcgaat agatattcaa 1550
 atgttgcatg ttgaccagag ggattttata tctgaagaac atacactatt 1600
 aataaatacc ttagagaaag attttgacct ggcttttagat aaaactgtgg 1650
 caagaaaaat gtaatgagca atatatggaa ataaacacac ctttgtaaaa 1700
 gataaaaaaa aa 1712

<210> 2

<211> 246

<212> PRT

<213> Homo Sapien

<400> 2

Met	Leu	Trp	Arg	Gln	Leu	Ile	Tyr	Trp	Gln	Leu	Leu	Ala	Leu	Phe
1				5					10					15
Phe	Leu	Pro	Phe	Cys	Leu	Cys	Gln	Asp	Glu	Tyr	Met	Glu	Ser	Pro
				20					25					30
Gln	Thr	Gly	Gly	Leu	Pro	Pro	Asp	Cys	Ser	Lys	Cys	Cys	His	Gly
				35					40					45
Asp	Tyr	Ser	Phe	Arg	Gly	Tyr	Gln	Gly	Pro	Pro	Gly	Pro	Pro	Gly
				50					55					60
Pro	Pro	Gly	Ile	Pro	Gly	Asn	His	Gly	Asn	Asn	Gly	Asn	Asn	Gly
				65					70					75
Ala	Thr	Gly	His	Glu	Gly	Ala	Lys	Gly	Glu	Lys	Gly	Asp	Lys	Gly
				80					85					90
Asp	Leu	Gly	Pro	Arg	Gly	Glu	Arg	Gly	Gln	His	Gly	Pro	Lys	Gly
				95					100					105
Glu	Lys	Gly	Tyr	Pro	Gly	Ile	Pro	Pro	Glu	Leu	Gln	Ile	Ala	Phe
				110					115					120
Met	Ala	Ser	Leu	Ala	Thr	His	Phe	Ser	Asn	Gln	Asn	Ser	Gly	Ile
				125					130					135
Ile	Phe	Ser	Ser	Val	Glu	Thr	Asn	Ile	Gly	Asn	Phe	Phe	Asp	Val
				140					145					150

Met	Thr	Gly	Arg	Phe	Gly	Ala	Pro	Val	Ser	Gly	Val	Tyr	Phe	Phe
				155						160				165
Thr	Phe	Ser	Met	Met	Lys	His	Glu	Asp	Val	Glu	Glu	Val	Tyr	Val
				170						175				180
Tyr	Leu	Met	His	Asn	Gly	Asn	Thr	Val	Phe	Ser	Met	Tyr	Ser	Tyr
				185						190				195
Glu	Met	Lys	Gly	Lys	Ser	Asp	Thr	Ser	Ser	Asn	His	Ala	Val	Leu
				200						205				210
Lys	Leu	Ala	Lys	Gly	Asp	Glu	Val	Trp	Leu	Arg	Met	Gly	Asn	Gly
				215						220				225
Ala	Leu	His	Gly	Asp	His	Gln	Arg	Phe	Ser	Thr	Phe	Ala	Gly	Phe
				230						235				240
Leu	Leu	Phe	Glu	Thr	Lys									
				245										

<210> 3
 <211> 43
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 3
 tgtaaaacga cggccagtta aatagacctg caattattaa tct 43

<210> 4
 <211> 41
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 4
 caggaaacag ctatgaccac ctgcacacct gcaaattccat t 41

<210> 5
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 5
 gcaacaatgg agccactggg catg 24

<210> 6
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 6
gcaaaggtgg agaagcgttg gtgg 24

<210> 7
<211> 52
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 7
cccacttcag caatcagaac agtgggatta tctttcagca gtgtttgaga 50
cc 52

<210> 8
<211> 1579
<212> DNA
<213> Homo Sapien

<400> 8
gagagaatag ctacagattc tccatcctca gtctttgcaa ggcgacagct 50
gtgccagccg ggctctggca ggctcctggc agcatggcag tgaagcttgg 100
gaccctcctg ctggcccttg ccttgggcct ggcccagcca gcctctgccc 150
gccggaagct gctggtgttt ctgctggatg gttttcgctc agactacatc 200
agtgatgagg cgctggagtc attgcctggc ttcaaagaga ttgtgagcag 250
gggagtaaaa gtggattact tgactccaga cttccctagt ctctcgatc 300
ccaattatta taccctaagc actggccgcc attgtgaagt ccatcagatg 350
atcgggaact acatgtggga cccaccacc aacaagtcct ttgacattgg 400
cgtcaacaaa gacagcctaa tgctctctg gtggaatgga tcagaacctc 450
tgtgggtcac tctgaccaag gccaaaagga aggtctacat gtactactgg 500
ccaggctgtg aggttgagat tctgggtgtc agaccacct actgcctaga 550
atataaaaat gtcccaacgg atatcaattt tgccaatgca gtcagcgatg 600
ctcttgactc cttcaagagt ggccgggccc acctggcagc catataccat 650
gagcgcattg acgtggaagg ccaccactac gggcctgcat ctccgcagag 700
gaaagatgcc ctcaaggctg tagacactgt cctgaagtac atgaccaagt 750
ggatccagga gcggggcctg caggaccgcc tgaacgtcat tattttctcg 800
gatcacggaa tgaccgacat tttctggatg gacaaagtga ttgagctgaa 850

taagtacatc agcctgaatg acctgcagca agtgaaggac cgcgggcctg 900
 ttgtgagcct ttggccggcc cctgggaaac actctgagat atataacaaa 950
 ctgagcacag tggaacacat gactgtctac gagaaagaag ccatcccaag 1000
 caggttctat tacaagaaag gaaagtttgt ctctcctttg acttttagtgg 1050
 ctgatgaagg ctggttcata actgagaatc gagagatgct tccgttttgg 1100
 atgaacagca ccggcaggcg ggaaggttgg cagcgtggat ggcacggcta 1150
 cgacaacgag ctcatggaca tgcggggcat cttcctggcc ttcggacctg 1200
 atttcaaadc caacttcaga gctgctccta tcaggtcggt ggacgtctac 1250
 aatgtcatgt gcaatgtggt gggcatcacc ccgctgcca acaacggatc 1300
 ctggtccagg gtgatgtgca tgetgaaggg ccgcgccggc actgccccgc 1350
 ctgtctggcc cagccactgt gccctggcac tgattcttct cttcctgctt 1400
 gcataactga tcatattgct tgtctcagaa aaaaacacca tcagcaaagt 1450
 gggcctccaa agccagatga ttttcatttt atgtgtgaat aatagcttca 1500
 ttaacacaat caagaccatg cacattgtaa atacattatt cttggataat 1550
 tctatacata aaagttccta cttgttaaa 1579

<210> 9

<211> 440

<212> PRT

<213> Homo Sapien

<400> 9

Met	Ala	Val	Lys	Leu	Gly	Thr	Leu	Leu	Leu	Ala	Leu	Ala	Leu	Gly
1				5						10				15
Leu	Ala	Gln	Pro	Ala	Ser	Ala	Arg	Arg	Lys	Leu	Leu	Val	Phe	Leu
				20					25					30
Leu	Asp	Gly	Phe	Arg	Ser	Asp	Tyr	Ile	Ser	Asp	Glu	Ala	Leu	Glu
				35					40					45
Ser	Leu	Pro	Gly	Phe	Lys	Glu	Ile	Val	Ser	Arg	Gly	Val	Lys	Val
				50					55					60
Asp	Tyr	Leu	Thr	Pro	Asp	Phe	Pro	Ser	Leu	Ser	Tyr	Pro	Asn	Tyr
				65					70					75
Tyr	Thr	Leu	Met	Thr	Gly	Arg	His	Cys	Glu	Val	His	Gln	Met	Ile
				80					85					90
Gly	Asn	Tyr	Met	Trp	Asp	Pro	Thr	Thr	Asn	Lys	Ser	Phe	Asp	Ile
				95					100					105
Gly	Val	Asn	Lys	Asp	Ser	Leu	Met	Pro	Leu	Trp	Trp	Asn	Gly	Ser

	110		115		120
Glu Pro Leu Trp	Val Thr Leu Thr Lys	Ala Lys Arg Lys Val Tyr			
	125	130			135
Met Tyr Tyr Trp	Pro Gly Cys Glu Val	Glu Ile Leu Gly Val Arg			
	140	145			150
Pro Thr Tyr Cys	Leu Glu Tyr Lys Asn	Val Pro Thr Asp Ile Asn			
	155	160			165
Phe Ala Asn Ala	Val Ser Asp Ala Leu	Asp Ser Phe Lys Ser Gly			
	170	175			180
Arg Ala Asp Leu	Ala Ala Ile Tyr His	Glu Arg Ile Asp Val Glu			
	185	190			195
Gly His His Tyr	Gly Pro Ala Ser Pro	Gln Arg Lys Asp Ala Leu			
	200	205			210
Lys Ala Val Asp	Thr Val Leu Lys Tyr	Met Thr Lys Trp Ile Gln			
	215	220			225
Glu Arg Gly Leu	Gln Asp Arg Leu Asn	Val Ile Ile Phe Ser Asp			
	230	235			240
His Gly Met Thr	Asp Ile Phe Trp Met	Asp Lys Val Ile Glu Leu			
	245	250			255
Asn Lys Tyr Ile	Ser Leu Asn Asp Leu	Gln Gln Val Lys Asp Arg			
	260	265			270
Gly Pro Val Val	Ser Leu Trp Pro Ala	Pro Gly Lys His Ser Glu			
	275	280			285
Ile Tyr Asn Lys	Leu Ser Thr Val Glu	His Met Thr Val Tyr Glu			
	290	295			300
Lys Glu Ala Ile	Pro Ser Arg Phe Tyr	Tyr Lys Lys Gly Lys Phe			
	305	310			315
Val Ser Pro Leu	Thr Leu Val Ala Asp	Glu Gly Trp Phe Ile Thr			
	320	325			330
Glu Asn Arg Glu	Met Leu Pro Phe Trp	Met Asn Ser Thr Gly Arg			
	335	340			345
Arg Glu Gly Trp	Gln Arg Gly Trp His	Gly Tyr Asp Asn Glu Leu			
	350	355			360
Met Asp Met Arg	Gly Ile Phe Leu Ala	Phe Gly Pro Asp Phe Lys			
	365	370			375
Ser Asn Phe Arg	Ala Ala Pro Ile Arg	Ser Val Asp Val Tyr Asn			
	380	385			390
Val Met Cys Asn	Val Val Gly Ile Thr	Pro Leu Pro Asn Asn Gly			
	395	400			405

Ser	Trp	Ser	Arg	Val	Met	Cys	Met	Leu	Lys	Gly	Arg	Ala	Gly	Thr
				410					415					420
Ala	Pro	Pro	Val	Trp	Pro	Ser	His	Cys	Ala	Leu	Ala	Leu	Ile	Leu
				425					430					435
Leu	Phe	Leu	Leu	Ala										
				440										

<210> 10
 <211> 1047
 <212> DNA
 <213> Homo Sapien

<400> 10
 gccagggtgtg caggccgctc caagcccagc ctgccccgct gccgccacca 50
 tgacgctcct ccccggcctc ctgtttctga cctggctgca cacatgcctg 100
 gccaccatg acccctccct cagggggcac cccacagtc acggtacccc 150
 aactgctac tcggctgagg aactgccctt cggccaggcc ccccccacacc 200
 tgctggctcg aggtgccaaag tgggggcagg ctttgctgt agccctgggtg 250
 tccagcctgg aggcagcaag ccacaggggg aggcacgaga ggccctcagc 300
 tacgaccagc tgcccgggtgc tgcggccgga ggaggtgttg gaggcagaca 350
 cccaccagcg ctccatctca ccttgagat accgtgtgga cacggatgag 400
 gaccgctatc cacagaagct ggccttcgcc gactgcctgt gcagaggctg 450
 tatcgatgca cggacggggc gcgagacagc tgcgctcaac tccgtgcggc 500
 tgctccagag cctgctgggtg ctgcgccgcc ggccctgctc ccgcgacggc 550
 tcggggctcc ccacacctgg ggcctttgcc ttccacaccg agttcatcca 600
 cgtccccgtc ggctgcacct gcgtgctgcc ccgttcagtg tgaccgccga 650
 ggccgtgggg ccctagact ggacacgtgt gctccccaga gggcaccccc 700
 tatttatgtg tatttattgt tatttatatg cttcccccaa cactaccctt 750
 ggggtctggg cattccccgt gtctggagga cagcccccca ctgtttcctt 800
 catctccagc ctcagtagtt gggggtagaa ggagctcagc acctcttcca 850
 gcccttaaag ctgcagaaaa ggtgtcacac ggctgcctgt accttggtc 900
 cctgtcctgc tcccggttc ccttacccta tcttggtcct caggccccgc 950
 aggtgcctc ttcccaacct ccttgaagt acccctgttt cttaaacaat 1000
 tatttaagtg tacgtgtatt attaaactga tgaacacatc cccaaaa 1047

<210> 11

<211> 197
 <212> PRT
 <213> Homo Sapien

<400> 11

Met	Thr	Leu	Leu	Pro	Gly	Leu	Leu	Phe	Leu	Thr	Trp	Leu	His	Thr
1				5					10					15
Cys	Leu	Ala	His	His	Asp	Pro	Ser	Leu	Arg	Gly	His	Pro	His	Ser
				20					25					30
His	Gly	Thr	Pro	His	Cys	Tyr	Ser	Ala	Glu	Glu	Leu	Pro	Leu	Gly
				35					40					45
Gln	Ala	Pro	Pro	His	Leu	Leu	Ala	Arg	Gly	Ala	Lys	Trp	Gly	Gln
				50					55					60
Ala	Leu	Pro	Val	Ala	Leu	Val	Ser	Ser	Leu	Glu	Ala	Ala	Ser	His
				65					70					75
Arg	Gly	Arg	His	Glu	Arg	Pro	Ser	Ala	Thr	Thr	Gln	Cys	Pro	Val
				80					85					90
Leu	Arg	Pro	Glu	Glu	Val	Leu	Glu	Ala	Asp	Thr	His	Gln	Arg	Ser
				95					100					105
Ile	Ser	Pro	Trp	Arg	Tyr	Arg	Val	Asp	Thr	Asp	Glu	Asp	Arg	Tyr
				110					115					120
Pro	Gln	Lys	Leu	Ala	Phe	Ala	Glu	Cys	Leu	Cys	Arg	Gly	Cys	Ile
				125					130					135
Asp	Ala	Arg	Thr	Gly	Arg	Glu	Thr	Ala	Ala	Leu	Asn	Ser	Val	Arg
				140					145					150
Leu	Leu	Gln	Ser	Leu	Leu	Val	Leu	Arg	Arg	Arg	Pro	Cys	Ser	Arg
				155					160					165
Asp	Gly	Ser	Gly	Leu	Pro	Thr	Pro	Gly	Ala	Phe	Ala	Phe	His	Thr
				170					175					180
Glu	Phe	Ile	His	Val	Pro	Val	Gly	Cys	Thr	Cys	Val	Leu	Pro	Arg
				185					190					195

Ser Val

<210> 12
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 12
 atccacagaa gctggccttc gccg 24

<210> 13
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 13
gggacgtgga tgaactcggg gtgg 24

<210> 14
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 14
tatccacaga agctggcctt cgccgagtgc ctgtgcagag 40

<210> 15
<211> 660
<212> DNA
<213> Homo Sapien

<400> 15
cgccaggggc gccgacagcc cgacctcacc aggagaacat gcagctcggc 50
actgggctcc tgctggccgc cgtcctgagc ctgcagctgg ctgcagccga 100
agccatatgg tgtcaccagt gcacgggctt cggagggtgc tcccatggat 150
ccagatgcct gagggactcc acccactgtg tcaccactgc caccgggtc 200
ctcagcaaca ccgaggattt gcctctggtc accaagatgt gccacatagg 250
ctgccccgat atccccagcc tgggcctggg cccctacgta tccatcgctt 300
gctgccagac cagcctctgc aaccatgact gacggctgcc ctctccagg 350
cccccgagc ctcagcccc acagcccca cagcctggcg ccagggtca 400
cgcccgcccc tccctcgaga ctggccagcc cacctctccc ggctctgca 450
gccaccgtcc agcaccgctt gtcctaggga agtcctgcgt ggagtcttgc 500
ctcaatctgc tgccgtccaa gcctggggcc catcgtgcct gccgccctt 550
caggtcccga cctccccaca ataaaatgtg attggatcgt gtggtacaaa 600
aaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 650
aaaaaaaaa 660

<210> 16
<211> 97

<212> PRT
<213> Homo Sapien

<400> 16
Met Gln Leu Gly Thr Gly Leu Leu Leu Ala Ala Val Leu Ser Leu
1 5 10 15
Gln Leu Ala Ala Ala Glu Ala Ile Trp Cys His Gln Cys Thr Gly
20 25 30
Phe Gly Gly Cys Ser His Gly Ser Arg Cys Leu Arg Asp Ser Thr
35 40 45
His Cys Val Thr Thr Ala Thr Arg Val Leu Ser Asn Thr Glu Asp
50 55 60
Leu Pro Leu Val Thr Lys Met Cys His Ile Gly Cys Pro Asp Ile
65 70 75
Pro Ser Leu Gly Leu Gly Pro Tyr Val Ser Ile Ala Cys Cys Gln
80 85 90
Thr Ser Leu Cys Asn His Asp
95

<210> 17
<211> 2570
<212> DNA
<213> Homo Sapien

<400> 17
ccaggaccag ggcgcaccgg ctcagcctct cacttgctcag aggccgggga 50
agagaagcaa agcgcaacgg tgtggtccaa gccgggggctt ctgcttcgcc 100
tctaggacat acacgggacc ccctaacttc agtcccccaa acgcgcaccc 150
tcgaagtctt gaactccagc cccgcacatc cacgcgcggc acaggcgcg 200
caggcggcag gtcccggccg aaggcgatgc gcgcaggggg tcgggcagct 250
gggctcgggc ggcgggagta gggcccggca gggaggcagg gaggctgcat 300
attcagagtc gcgggctgcg ccctgggcag aggcgcgcct cgctccacgc 350
aacacctgct gctgccaccg cgccgcgatg agccgcgtgg tctcgctgct 400
gctgggcgcc gcgctgctct gcggccacgg agccttctgc cgccgcgtgg 450
tcagcggcca aaaggtgtgt tttgctgact tcaagcatcc ctgctacaaa 500
atggcctact tccatgaact gtccagccga gtgagctttc aggaggcacg 550
cctggcttgt gagagtgagg gaggagtcc cctcagcctt gagaatgaag 600
cagaacagaa gttaatagag agcatgttgc aaaacctgac aaaacccggg 650
acagggattt ctgatgtgta tttctggata gggctttgga ggaatggaga 700

[illegible]

cactggaggc agatagttgc aaagttagtc taaggtttcc ctagctgtat 2200
 ttagcctctg actatattag tatacaaaga ggtcatgtgg ttgagaccag 2250
 gtgaatagtc actatcagtg tggagacaag cacagcacac agacatttta 2300
 ggaaggaaag gaactacgaa atcgtgtgaa aatggggttg aacccatcag 2350
 tgatcgcata ttcattgatg agggtttgct tgagatagaa aatgggtggct 2400
 cctttctgtc ttatctccta gtttcttcaa tgcttacgcc ttgttcttct 2450
 caagagaaaag ttgtaactct ctggtcttca tatgtccctg tgctcctttt 2500
 aaccaaataa agagttcttg tttctggggg aaaaaaaaaa aaaaaaaaaa 2550
 aaaaaaaaaa aaaaaaaaaa 2570

<210> 18
 <211> 273
 <212> PRT
 <213> Homo Sapien

<400> 18
 Met Ser Arg Val Val Ser Leu Leu Leu Gly Ala Ala Leu Leu Cys
 1 5 10 15
 Gly His Gly Ala Phe Cys Arg Arg Val Val Ser Gly Gln Lys Val
 20 25 30
 Cys Phe Ala Asp Phe Lys His Pro Cys Tyr Lys Met Ala Tyr Phe
 35 40 45
 His Glu Leu Ser Ser Arg Val Ser Phe Gln Glu Ala Arg Leu Ala
 50 55 60
 Cys Glu Ser Glu Gly Gly Val Leu Leu Ser Leu Glu Asn Glu Ala
 65 70 75
 Glu Gln Lys Leu Ile Glu Ser Met Leu Gln Asn Leu Thr Lys Pro
 80 85 90
 Gly Thr Gly Ile Ser Asp Gly Asp Phe Trp Ile Gly Leu Trp Arg
 95 100 105
 Asn Gly Asp Gly Gln Thr Ser Gly Ala Cys Pro Asp Leu Tyr Gln
 110 115 120
 Trp Ser Asp Gly Ser Asn Ser Gln Tyr Arg Asn Trp Tyr Thr Asp
 125 130 135
 Glu Pro Ser Cys Gly Ser Glu Lys Cys Val Val Met Tyr His Gln
 140 145 150
 Pro Thr Ala Asn Pro Gly Leu Gly Gly Pro Tyr Leu Tyr Gln Trp
 155 160 165
 Asn Asp Asp Arg Cys Asn Met Lys His Asn Tyr Ile Cys Lys Tyr

170										175					180				
Glu	Pro	Glu	Ile	Asn	Pro	Thr	Ala	Pro	Val	Glu	Lys	Pro	Tyr	Leu					
				185					190					195					
Thr	Asn	Gln	Pro	Gly	Asp	Thr	His	Gln	Asn	Val	Val	Val	Thr	Glu					
				200					205					210					
Ala	Gly	Ile	Ile	Pro	Asn	Leu	Ile	Tyr	Val	Val	Ile	Pro	Thr	Ile					
				215					220					225					
Pro	Leu	Leu	Leu	Leu	Ile	Leu	Val	Ala	Phe	Gly	Thr	Cys	Cys	Phe					
				230					235					240					
Gln	Met	Leu	His	Lys	Ser	Lys	Gly	Arg	Thr	Lys	Thr	Ser	Pro	Asn					
				245					250					255					
Gln	Ser	Thr	Leu	Trp	Ile	Ser	Lys	Ser	Thr	Arg	Lys	Glu	Ser	Gly					
				260					265					270					

Met Glu Val

<210> 19
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 19
 caccaaccaa ctgccaatcc tggc 24

<210> 20
 <211> 26
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 20
 accacattct gatgggtgtc tcctgg 26

<210> 21
 <211> 49
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 21
 ggtccctac ctttaccagt ggaatgatga caggtgtaac atgaagcac 49

<210> 22
 <211> 3824

<212> DNA

<213> Homo Sapien

<400> 22

ggagaatgga gagagcagtg agagtggagt ccgggggcct ggtcggggtg 50
gtctgtctgc tcttggcatg ccctgccaca gccactgggc ccgaagttgc 100
tcagcctgaa gtagacacca ccctgggtcg tgtgcgaggc cggcaggtgg 150
gcgtgaaggg cacagaccgc cttgtgaatg tctttctggg cattccattt 200
gccagccgc cactgggccc tgaccggttc tcagccccac acccagcaca 250
gccctgggag ggtgtgcggg atgccagcac tgcgccccca atgtgcctac 300
aagacgtgga gagcatgaac agcagcagat ttgtcctcaa cggaaaacag 350
cagatcttct ccgtttcaga ggactgcctg gtctcaacg tctatagccc 400
agctgaggtc cccgcagggc ccggtaggcc ggtcatggta tgggtccatg 450
gaggcgctct gataactggc gctgccacct cctacgatgg atcagctctg 500
gctgcctatg gggatgtggt cgtgggttaca gtccagtacc gccttggggg 550
ccttggcttc ttcagcactg gagatgagca tgcacctggc aaccagggct 600
tcctagatgt ggtagctgct ttgcgctggg tgcaagaaaa catcgcccc 650
ttcgggggtg acctcaactg tgtcaactgtc tttggtggat ctgccggtgg 700
gagcatcatc tctggcctgg tctgttcccc agtggctgca gggctgttcc 750
acagagccat cacacagagt ggggtcatca ccaccccagg gatcatcgac 800
tctcaccctt ggcccctagc tcagaaaatc gcaaacacct tggcctgcag 850
ctccagctcc ccggctgaga tgggtgcagtg ccttcagcag aaagaaggag 900
aagagctggt ccttagcaag aagctgaaaa atactatcta tcctctcacc 950
gttgatggca ctgtcttccc caaaagcccc aaggaactcc tgaaggagaa 1000
gcccttccac tctgtgccct tctcatggg tgtcaacaac catgagttca 1050
gctggctcat cccagggggc tggggtctcc tggatacaat ggagcagatg 1100
agccgggagg acatgctggc catctcaaca ccggtcttga ccagtctgga 1150
tgtgccccct gagatgatgc ccaccgtcat agatgaatac ctaggaagca 1200
actcggacgc acaagccaaa tgccaggcgt tccaggaatt catgggtgac 1250
gtattcatca atgttcccac cgtcagtttt tcaagatacc ttcgagattc 1300
tggaagccct gtctttttct atgagttcca gcatcgacct agttcttttg 1350

agccctcgct tgctctccct gccgcctctg cctgggctcc cactttggca 2850
 gcaattgagg agcccttcaa cccgccgctg cactgtagga gcccctttct 2900
 gggctggcca aggccggagc cagctccctc agcttgcggg gaggtgcgga 2950
 gggagagggg cgggcaggaa ccggggctgc gcgcagcgct tgcgggccag 3000
 agtgagttcc gggtaggggt gggctcggcg gggccctact cagagcagct 3050
 ggccggcccc aggcagttag ggccttagca cctgggccag cagctgctgt 3100
 gctcgatttc tcgctgggac ttagctgcct ccccgcgggg cagggtcgg 3150
 gacctgcagc cctccatgcc tgacctccc cccaccccc gtgggctcct 3200
 gtgcggcccg agcctcccca aggagcgccg cccctgctc cacagcgccc 3250
 agtcccatcg accacccaag ggctgaggag tgcgggtgca cagcgcgga 3300
 ctggcaggca gctccacctg ctgccccagt gctggatcca ctgggtgaag 3350
 ccagctgggc tcctgagtct ggtggggact tggagaacct ttatgtctag 3400
 ctaagggatt gtaaatacac cgatgggcac tctgtatcta gctcaagggt 3450
 tgtaaacaca ccaatcagca ccctgtgtct agctcagtgt ttgtgaatgc 3500
 accaatccac actctgtatc tggctactct ggtggggact tggagaacct 3550
 ttgtgtccac actctgtatc tagctaact agtggggatg tggagaacct 3600
 ttgtgtctag ctgaggatc gtaaacgcac caatcagcac cctgtcaaaa 3650
 cagaccactt gactctctgt aaaatggacc aatcagcagg atgtgggtgg 3700
 ggcgagacaa gagaataaaa gcaggctgcc tgagccagca gtgacaacc 3750
 ccctcgggtc ccctcccacg ccgtggaagc tttgttcttt cgctctttgc 3800
 aataaatctt gctactgccc aaaa 3824

<210> 23

<211> 571

<212> PRT

<213> Homo Sapien

<400> 23

Met	Glu	Arg	Ala	Val	Arg	Val	Glu	Ser	Gly	Val	Leu	Val	Gly	Val
1				5					10				15	

Val	Cys	Leu	Leu	Leu	Ala	Cys	Pro	Ala	Thr	Ala	Thr	Gly	Pro	Glu
				20					25				30	

Val	Ala	Gln	Pro	Glu	Val	Asp	Thr	Thr	Leu	Gly	Arg	Val	Arg	Gly
				35					40				45	

Arg	Gln	Val	Gly	Val	Lys	Gly	Thr	Asp	Arg	Leu	Val	Asn	Val	Phe
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

50										55					60				
Leu	Gly	Ile	Pro	Phe	Ala	Gln	Pro	Pro	Leu	Gly	Pro	Asp	Arg	Phe					
				65					70					75					
Ser	Ala	Pro	His	Pro	Ala	Gln	Pro	Trp	Glu	Gly	Val	Arg	Asp	Ala					
				80					85					90					
Ser	Thr	Ala	Pro	Pro	Met	Cys	Leu	Gln	Asp	Val	Glu	Ser	Met	Asn					
				95					100					105					
Ser	Ser	Arg	Phe	Val	Leu	Asn	Gly	Lys	Gln	Gln	Ile	Phe	Ser	Val					
				110					115					120					
Ser	Glu	Asp	Cys	Leu	Val	Leu	Asn	Val	Tyr	Ser	Pro	Ala	Glu	Val					
				125					130					135					
Pro	Ala	Gly	Ser	Gly	Arg	Pro	Val	Met	Val	Trp	Val	His	Gly	Gly					
				140					145					150					
Ala	Leu	Ile	Thr	Gly	Ala	Ala	Thr	Ser	Tyr	Asp	Gly	Ser	Ala	Leu					
				155					160					165					
Ala	Ala	Tyr	Gly	Asp	Val	Val	Val	Val	Thr	Val	Gln	Tyr	Arg	Leu					
				170					175					180					
Gly	Val	Leu	Gly	Phe	Phe	Ser	Thr	Gly	Asp	Glu	His	Ala	Pro	Gly					
				185					190					195					
Asn	Gln	Gly	Phe	Leu	Asp	Val	Val	Ala	Ala	Leu	Arg	Trp	Val	Gln					
				200					205					210					
Glu	Asn	Ile	Ala	Pro	Phe	Gly	Gly	Asp	Leu	Asn	Cys	Val	Thr	Val					
				215					220					225					
Phe	Gly	Gly	Ser	Ala	Gly	Gly	Ser	Ile	Ile	Ser	Gly	Leu	Val	Leu					
				230					235					240					
Ser	Pro	Val	Ala	Ala	Gly	Leu	Phe	His	Arg	Ala	Ile	Thr	Gln	Ser					
				245					250					255					
Gly	Val	Ile	Thr	Thr	Pro	Gly	Ile	Ile	Asp	Ser	His	Pro	Trp	Pro					
				260					265					270					
Leu	Ala	Gln	Lys	Ile	Ala	Asn	Thr	Leu	Ala	Cys	Ser	Ser	Ser	Ser					
				275					280					285					
Pro	Ala	Glu	Met	Val	Gln	Cys	Leu	Gln	Gln	Lys	Glu	Gly	Glu	Glu					
				290					295					300					
Leu	Val	Leu	Ser	Lys	Lys	Leu	Lys	Asn	Thr	Ile	Tyr	Pro	Leu	Thr					
				305					310					315					
Val	Asp	Gly	Thr	Val	Phe	Pro	Lys	Ser	Pro	Lys	Glu	Leu	Leu	Lys					
				320					325					330					
Glu	Lys	Pro	Phe	His	Ser	Val	Pro	Phe	Leu	Met	Gly	Val	Asn	Asn					
				335					340					345					

His	Glu	Phe	Ser	Trp	Leu	Ile	Pro	Arg	Gly	Trp	Gly	Leu	Leu	Asp	350	355	360
Thr	Met	Glu	Gln	Met	Ser	Arg	Glu	Asp	Met	Leu	Ala	Ile	Ser	Thr	365	370	375
Pro	Val	Leu	Thr	Ser	Leu	Asp	Val	Pro	Pro	Glu	Met	Met	Pro	Thr	380	385	390
Val	Ile	Asp	Glu	Tyr	Leu	Gly	Ser	Asn	Ser	Asp	Ala	Gln	Ala	Lys	395	400	405
Cys	Gln	Ala	Phe	Gln	Glu	Phe	Met	Gly	Asp	Val	Phe	Ile	Asn	Val	410	415	420
Pro	Thr	Val	Ser	Phe	Ser	Arg	Tyr	Leu	Arg	Asp	Ser	Gly	Ser	Pro	425	430	435
Val	Phe	Phe	Tyr	Glu	Phe	Gln	His	Arg	Pro	Ser	Ser	Phe	Ala	Lys	440	445	450
Ile	Lys	Pro	Ala	Trp	Val	Lys	Ala	Asp	His	Gly	Ala	Glu	Gly	Ala	455	460	465
Phe	Val	Phe	Gly	Gly	Pro	Phe	Leu	Met	Asp	Glu	Ser	Ser	Arg	Leu	470	475	480
Ala	Phe	Pro	Glu	Ala	Thr	Glu	Glu	Glu	Lys	Gln	Leu	Ser	Leu	Thr	485	490	495
Met	Met	Ala	Gln	Trp	Thr	His	Phe	Ala	Arg	Thr	Gly	Asp	Pro	Asn	500	505	510
Ser	Lys	Ala	Leu	Pro	Pro	Trp	Pro	Gln	Phe	Asn	Gln	Ala	Glu	Gln	515	520	525
Tyr	Leu	Glu	Ile	Asn	Pro	Val	Pro	Arg	Ala	Gly	Gln	Lys	Phe	Arg	530	535	540
Glu	Ala	Trp	Met	Gln	Phe	Trp	Ser	Glu	Thr	Leu	Pro	Ser	Lys	Ile	545	550	555
Gln	Gln	Trp	His	Gln	Lys	Gln	Lys	Asn	Arg	Lys	Ala	Gln	Glu	Asp	560	565	570

Leu

<210> 24

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 24

gcaaagctct gcctccttgg cc 22

<210> 25
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 25
gggtggactg tgctctaattg gacgc 25

<210> 26
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 26
cgtggcactg gggtgatc 18

<210> 27
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 27
gatgcagttc tggtcagaga cgctcccag caagatacaa cagtg 45

<210> 28
<211> 1342
<212> DNA
<213> Homo Sapien

<400> 28
catggagcct cttgcagctt acccgctaaa atgttccggg cccagagcaa 50
aggtatttgc agttttgctg tctatagttc tatgcacagt aacgctattt 100
cttctacaac taaaattcct caaacctaaa atcaacagct tttatgcctt 150
tgaagtgaag gatgcaaaaag gaagaactgt ttctctggaa aagtataaag 200
gcaaagtttc actagttgta aacgtggcca gtgactgcca actcacagac 250
agaaattact tagggctgaa ggaactgcac aaagagtttg gaccatccca 300
cttcagcgtg ttggcttttc cctgcaatca gtttggagaa tcggagcccc 350
gccaagcaa ggaagtagaa tcttttgcaa gaaaaaacta cggagtaact 400
ttccccatct tccacaagat taagattcta ggatctgaag gagaacctgc 450
atttagattt cttgttgatt cttcaaagaa ggaaccaagg tggaattttt 500

ggaagtatct tgtcaaccct gaggggtcaag ttgtgaagtt ctggaggcca 550
 gagggagccca ttgaagtcat caggcctgac atagcagctc tggtagaca 600
 agtgatcata aaaaagaaag aggatctatg agaatgccat tgcgtttcta 650
 atagaacaga gaaatgtctc catgaggggtt tgggtctcatt ttaaacattt 700
 tttttttgga gacagtgtct cactctgtca cccaggctgg agtgcagtag 750
 tgcgtttctca gctcattgca acctctgcct ttttaaacad gctattaaat 800
 gtggcaatga aggatttttt tttaatgtta tcttgctatt aagtggtaat 850
 gaatgttccc aggatgagga tgttacccaa agcaaaaatc aagagtagcc 900
 aaagaatcaa catgaaatat attaaactact tcctctgacc atactaaaga 950
 attcagaata cacagtgacc aatgtgcctc aatatcttat tgttcaactt 1000
 gacattttct aggactgtac ttgatgaaaa tgccaacaca ctagaccact 1050
 ctttggaattc aagagcactg tgtatgactg aaatttctgg aataactgta 1100
 aatgggttatg ttaatggaat aaaacacaaa tgttgaaaaa tgtaaaatat 1150
 atatacatag attcaaatcc ttatatatgt atgcttgttt tgtgtacagg 1200
 attttgtttt ttcttttttaa gtacagggtc ctagtgtttt actataactg 1250
 tcactatgta tgtaactgac atatataaat agtcatttat aaatgaccgt 1300
 attataacat ttgaaaaagt cttcatcaaa aaaaaaaaaa aa 1342

<210> 29
 <211> 209
 <212> PRT
 <213> Homo Sapien

<400> 29
 Met Glu Pro Leu Ala Ala Tyr Pro Leu Lys Cys Ser Gly Pro Arg
 1 5 10 15
 Ala Lys Val Phe Ala Val Leu Leu Ser Ile Val Leu Cys Thr Val
 20 25 30
 Thr Leu Phe Leu Leu Gln Leu Lys Phe Leu Lys Pro Lys Ile Asn
 35 40 45
 Ser Phe Tyr Ala Phe Glu Val Lys Asp Ala Lys Gly Arg Thr Val
 50 55 60
 Ser Leu Glu Lys Tyr Lys Gly Lys Val Ser Leu Val Val Asn Val
 65 70 75
 Ala Ser Asp Cys Gln Leu Thr Asp Arg Asn Tyr Leu Gly Leu Lys
 80 85 90

Glu	Leu	His	Lys	Glu	Phe	Gly	Pro	Ser	His	Phe	Ser	Val	Leu	Ala
				95					100					105
Phe	Pro	Cys	Asn	Gln	Phe	Gly	Glu	Ser	Glu	Pro	Arg	Pro	Ser	Lys
				110					115					120
Glu	Val	Glu	Ser	Phe	Ala	Arg	Lys	Asn	Tyr	Gly	Val	Thr	Phe	Pro
				125					130					135
Ile	Phe	His	Lys	Ile	Lys	Ile	Leu	Gly	Ser	Glu	Gly	Glu	Pro	Ala
				140					145					150
Phe	Arg	Phe	Leu	Val	Asp	Ser	Ser	Lys	Lys	Glu	Pro	Arg	Trp	Asn
				155					160					165
Phe	Trp	Lys	Tyr	Leu	Val	Asn	Pro	Glu	Gly	Gln	Val	Val	Lys	Phe
				170					175					180
Trp	Arg	Pro	Glu	Glu	Pro	Ile	Glu	Val	Ile	Arg	Pro	Asp	Ile	Ala
				185					190					195
Ala	Leu	Val	Arg	Gln	Val	Ile	Ile	Lys	Lys	Lys	Glu	Asp	Leu	
				200					205					

<210> 30
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 30
 atcctccaac atggagcctc ttgc 24

<210> 31
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 31
 gtatcttgtc aaccctgagg 20

<210> 32
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 32
 taaccagagc tgctatgtca ggcc 24

<210> 33

<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 33
aggcaaagtt tcactagttg taaacgtggc cagtgactgc caactcacag 50

<210> 34
<211> 3721
<212> DNA
<213> Homo Sapien

<400> 34
tgtcgccctgg ccctcgccat gcagaccccg cgagcgtccc ctccccgccc 50
ggccctcctg cttctgctgc tgctactggg gggcgccac gccctctttc 100
ctgaggagcc gccgcccgtt agcgtggccc ccagggacta cctgaaccac 150
tatcccggtg ttgtgggcag cgggcccggg cgcctgaccc ccgcagaagg 200
tgctgacgac ctcaacatcc agcgagtcct gcgggtcaac aggacgctgt 250
tcattgggga cagggacaac ctctaccgag tagagctgga gccccccacg 300
tccacggagc tgcggtacca gaggaagctg acctggagat ctaaccccag 350
cgacataaac gtgtgtcgga tgaagggcaa acaggagggc gagtgtcgaa 400
acttcgtaaa ggtgctgctc cttcgggacg agtccacgct ctttgtgtgc 450
ggttccaacg ccttcaaccc ggtgtgcgcc aactacagca tagacaccct 500
gcagcccgtc ggagacaaca tcagcgggat ggcccgtgc ccgtacgacc 550
ccaagcacgc caatgttgcc ctcttctctg acgggatgct cttcacagct 600
actgttaccg acttcctagc cattgatgct gtcatctacc gcagcctcgg 650
ggacaggccc accctgcgca ccgtgaaaca tgactccaag tggttcaaag 700
agccttactt tgtccatgag gtggagtggg gcagccatgt ctacttcttc 750
ttccgggaga ttgcgatgga gtttaactac ctggagaagg tgggtggtgc 800
ccgctgtggc cgagtgtgca agaacgacgt gggaggctcc ccccgctgc 850
tggaagaagc gtggacgtcc ttcctgaagg cgcggtcaa ctgctctgta 900
cccggagact ccatttcta cttcaacgtg ctgcaggctg tcacgggctg 950
ggtcagcctc gggggccggc ccgtggtcct ggccgttttt tccacgcca 1000
gcaacagcat ccctggctcg gctgtctgag cctttgacct gacacaggtg 1050

gcagctgtgt ttgaaggccg ctcccgagag cagaagtccc ccgagtccat 1100
ctggacgccg gtgccggagg atcaggtgcc tcgaccccg cccgggtgct 1150
gcgcagcccc cgggatgcag tacaatgcct ccagcgcctt gccggatgac 1200
atcctcaact ttgtcaagac ccacctctg atggacgagg cgggtgccctc 1250
gctggggccat gcgccctgga tcctgccggac cctgatgagg caccagctga 1300
ctcgagtggc tgtggacgtg ggagccggcc cctggggcaa ccagaccgtt 1350
gtcttcctgg gttctgaggc ggggacggtc ctcaagttcc tcgtccggcc 1400
caatgccagc acctcaggga cgtctgggct cagtgtcttc ctggaggagt 1450
ttgagaccta cgggccggac aggtgtggac ggcccggcgg tggcgagaca 1500
gggcagcggc tgctgagctt ggagctggac gcagcttcgg ggggcctgct 1550
ggctgccttc ccccgctgcg tgggccgagt gcctgtggct cgtgccagc 1600
agtactcggg gtgtatgaag aactgtatcg gcagtcagga cccctactgc 1650
gggtggggccc ccgacggctc ctgcatcttc ctacgcccgg gcaccagagc 1700
cgcctttgag caggacgtgt ccggggccag cacctcaggc ttaggggact 1750
gcacaggact cctgcgggcc agcctctccg aggaccgcgc ggggctggtg 1800
tcggtgaacc tgctggtaac gtcgtcggtg gcggccttcg tgggtgggagc 1850
cgtggtgtcc ggcttcagcg tgggctggtt cgtgggcctc cgtgagcggc 1900
gggagctggc cggcgcaag gacaaggagg ccatactggc gcacggggcg 1950
ggcgaggcgg tgctgagcgt cagccgcctg ggcgagcgca gggcgaggcg 2000
tcccgggggc cggggcgag gcggtggcgg tggcgccggg gttcccccg 2050
aggccctgct ggcgcccctg atgcagaacg gctgggcca ggcacgctg 2100
ctgcagggcg ggccccacga cctggactcg gggctgctgc ccacgcccga 2150
gcagacgccg ctgccgcaga agcgctgcc cactccgcac ccgcaccccc 2200
acgccctggg cccccgcgc tgggaccacg gccacccctt gctcccggcc 2250
tccgcttcat cctccctcct gctgctggcg cccgcccggg ccccagagca 2300
gcccccgcg cctggggagc cgacccccga cggccgcctc tatgctgcc 2350
ggcccggccg cgcctccac ggcgaattcc cgctcacccc ccacgccagc 2400
ccggaccgcc ggcgggtggt gtccgcgcc acgggcccct tggaccagc 2450
ctcagccgcc gatggcctcc cgcggccctg gagcccgccc ccgacgggca 2500

gcctgaggag gccactgggc cccacgccc ctccggccgc caccctgcgc 2550
cgcaccaca cgttcaacag cggcgaggcc cggcctgggg accgccaccg 2600
cggctgccac gcccggccgg gcacagactt ggcccacctc ctcccctatg 2650
ggggggcgga caggaactgc cccccgtgc cctaggccgg gggccccccg 2700
atgccttggc agtgccagcc acgggaacca ggagcgagag acggtgccag 2750
aacgccgggg ccgggggcaa ctccgagtgg gtgctcaagt cccccccg 2800
accacccgc ggagtggggg gcccctccg ccacaaggaa gcacaaccag 2850
ctgccctcc ccctaccgg ggccgcagga cgctgagacg gtttgggggt 2900
gggtgggcgg gaggactttg ctatggattt gaggttgacc ttatgcgcgt 2950
aggttttggt tttttttgc agttttggtt tcttttgcg ttttctaacc 3000
aattgcacaa ctccgttctc ggggtggcgg caggcagggg aggcttgac 3050
gccggtgggg aatggggggc cacagctgca gacctaagcc ctccccacc 3100
cctgaaaagg tccctcccca acccaggccc ctggcgtgtg tgggtgtgcg 3150
tgctgtgcg tgccgtgttc gtgtgcaagg ggccggggag gtgggcgtgt 3200
gtgtgcgtgc cagcgaaggc tgctgtgggc gtgtgtgtca agtgggccac 3250
gcgtgcaggg tgtgtgtcca cgagcgacga tcgtggtggc ccagcgggc 3300
tgggcgttgg ctgagccgac gctggggcct ccagaaggcc cgggggtctc 3350
cgaggtgccg gttaggagtt tgaaccccc ccactctgca gagggaagcg 3400
gggacaatgc cggggtttca ggcaggagac acgaggagg cctgcccgga 3450
agtcacatcg gcagcagctg tctaaagggc ttgggggcct ggggggcggc 3500
gaaggtgggt ggggccctc tgtaaatacg gcccagggt ggtgagagag 3550
tcccatgcc cccgtcccct tgtgacctc cccctatgac ctccagctga 3600
ccatgcatgc cacgtggctg gctgggtcct ctgccctctt tggagtttgc 3650
ctccccagc cccctcccca tcaataaac tctgtttaca accaaaaaaa 3700
aaaaaaaaa aaaaaaaaa a 3721

<210> 35

<211> 888

<212> PRT

<213> Homo Sapien

<400> 35

Met	Gln	Thr	Pro	Arg	Ala	Ser	Pro	Pro	Arg	Pro	Ala	Leu	Leu	Leu
1				5					10				15	

Leu	Leu	Leu	Leu	Leu	Gly	Gly	Ala	His	Gly	Leu	Phe	Pro	Glu	Glu	20	25	30
Pro	Pro	Pro	Leu	Ser	Val	Ala	Pro	Arg	Asp	Tyr	Leu	Asn	His	Tyr	35	40	45
Pro	Val	Phe	Val	Gly	Ser	Gly	Pro	Gly	Arg	Leu	Thr	Pro	Ala	Glu	50	55	60
Gly	Ala	Asp	Asp	Leu	Asn	Ile	Gln	Arg	Val	Leu	Arg	Val	Asn	Arg	65	70	75
Thr	Leu	Phe	Ile	Gly	Asp	Arg	Asp	Asn	Leu	Tyr	Arg	Val	Glu	Leu	80	85	90
Glu	Pro	Pro	Thr	Ser	Thr	Glu	Leu	Arg	Tyr	Gln	Arg	Lys	Leu	Thr	95	100	105
Trp	Arg	Ser	Asn	Pro	Ser	Asp	Ile	Asn	Val	Cys	Arg	Met	Lys	Gly	110	115	120
Lys	Gln	Glu	Gly	Glu	Cys	Arg	Asn	Phe	Val	Lys	Val	Leu	Leu	Leu	125	130	135
Arg	Asp	Glu	Ser	Thr	Leu	Phe	Val	Cys	Gly	Ser	Asn	Ala	Phe	Asn	140	145	150
Pro	Val	Cys	Ala	Asn	Tyr	Ser	Ile	Asp	Thr	Leu	Gln	Pro	Val	Gly	155	160	165
Asp	Asn	Ile	Ser	Gly	Met	Ala	Arg	Cys	Pro	Tyr	Asp	Pro	Lys	His	170	175	180
Ala	Asn	Val	Ala	Leu	Phe	Ser	Asp	Gly	Met	Leu	Phe	Thr	Ala	Thr	185	190	195
Val	Thr	Asp	Phe	Leu	Ala	Ile	Asp	Ala	Val	Ile	Tyr	Arg	Ser	Leu	200	205	210
Gly	Asp	Arg	Pro	Thr	Leu	Arg	Thr	Val	Lys	His	Asp	Ser	Lys	Trp	215	220	225
Phe	Lys	Glu	Pro	Tyr	Phe	Val	His	Ala	Val	Glu	Trp	Gly	Ser	His	230	235	240
Val	Tyr	Phe	Phe	Phe	Arg	Glu	Ile	Ala	Met	Glu	Phe	Asn	Tyr	Leu	245	250	255
Glu	Lys	Val	Val	Val	Ser	Arg	Val	Ala	Arg	Val	Cys	Lys	Asn	Asp	260	265	270
Val	Gly	Gly	Ser	Pro	Arg	Val	Leu	Glu	Lys	Gln	Trp	Thr	Ser	Phe	275	280	285
Leu	Lys	Ala	Arg	Leu	Asn	Cys	Ser	Val	Pro	Gly	Asp	Ser	His	Phe	290	295	300
Tyr	Phe	Asn	Val	Leu	Gln	Ala	Val	Thr	Gly	Val	Val	Ser	Leu	Gly			

	305		310		315
Gly Arg Pro Val	Val Leu Ala Val Phe	Ser Thr Pro Ser Asn Ser			
	320	325			330
Ile Pro Gly Ser	Ala Val Cys Ala Phe	Asp Leu Thr Gln Val Ala			
	335	340			345
Ala Val Phe Glu	Gly Arg Phe Arg Glu	Gln Lys Ser Pro Glu Ser			
	350	355			360
Ile Trp Thr Pro	Val Pro Glu Asp Gln	Val Pro Arg Pro Arg Pro			
	365	370			375
Gly Cys Cys Ala	Ala Pro Gly Met Gln	Tyr Asn Ala Ser Ser Ala			
	380	385			390
Leu Pro Asp Asp	Ile Leu Asn Phe Val	Lys Thr His Pro Leu Met			
	395	400			405
Asp Glu Ala Val	Pro Ser Leu Gly His	Ala Pro Trp Ile Leu Arg			
	410	415			420
Thr Leu Met Arg	His Gln Leu Thr Arg	Val Ala Val Asp Val Gly			
	425	430			435
Ala Gly Pro Trp	Gly Asn Gln Thr Val	Val Phe Leu Gly Ser Glu			
	440	445			450
Ala Gly Thr Val	Leu Lys Phe Leu Val	Arg Pro Asn Ala Ser Thr			
	455	460			465
Ser Gly Thr Ser	Gly Leu Ser Val Phe	Leu Glu Glu Phe Glu Thr			
	470	475			480
Tyr Arg Pro Asp	Arg Cys Gly Arg Pro	Gly Gly Gly Glu Thr Gly			
	485	490			495
Gln Arg Leu Leu	Ser Leu Glu Leu Asp	Ala Ala Ser Gly Gly Leu			
	500	505			510
Leu Ala Ala Phe	Pro Arg Cys Val Val	Arg Val Pro Val Ala Arg			
	515	520			525
Cys Gln Gln Tyr	Ser Gly Cys Met Lys	Asn Cys Ile Gly Ser Gln			
	530	535			540
Asp Pro Tyr Cys	Gly Trp Ala Pro Asp	Gly Ser Cys Ile Phe Leu			
	545	550			555
Ser Pro Gly Thr	Arg Ala Ala Phe Glu	Gln Asp Val Ser Gly Ala			
	560	565			570
Ser Thr Ser Gly	Leu Gly Asp Cys Thr	Gly Leu Leu Arg Ala Ser			
	575	580			585
Leu Ser Glu Asp	Arg Ala Gly Leu Val	Ser Val Asn Leu Leu Val			
	590	595			600

Thr	Ser	Ser	Val	Ala	Ala	Phe	Val	Val	Gly	Ala	Val	Val	Ser	Gly	605	610	615
Phe	Ser	Val	Gly	Trp	Phe	Val	Gly	Leu	Arg	Glu	Arg	Arg	Glu	Leu	620	625	630
Ala	Arg	Arg	Lys	Asp	Lys	Glu	Ala	Ile	Leu	Ala	His	Gly	Ala	Gly	635	640	645
Glu	Ala	Val	Leu	Ser	Val	Ser	Arg	Leu	Gly	Glu	Arg	Arg	Ala	Gln	650	655	660
Gly	Pro	Gly	Gly	Arg	Gly	Gly	Gly	Gly	Gly	Gly	Gly	Ala	Gly	Val	665	670	675
Pro	Pro	Glu	Ala	Leu	Leu	Ala	Pro	Leu	Met	Gln	Asn	Gly	Trp	Ala	680	685	690
Lys	Ala	Thr	Leu	Leu	Gln	Gly	Gly	Pro	His	Asp	Leu	Asp	Ser	Gly	695	700	705
Leu	Leu	Pro	Thr	Pro	Glu	Gln	Thr	Pro	Leu	Pro	Gln	Lys	Arg	Leu	710	715	720
Pro	Thr	Pro	His	Pro	His	Pro	His	Ala	Leu	Gly	Pro	Arg	Ala	Trp	725	730	735
Asp	His	Gly	His	Pro	Leu	Leu	Pro	Ala	Ser	Ala	Ser	Ser	Ser	Leu	740	745	750
Leu	Leu	Leu	Ala	Pro	Ala	Arg	Ala	Pro	Glu	Gln	Pro	Pro	Ala	Pro	755	760	765
Gly	Glu	Pro	Thr	Pro	Asp	Gly	Arg	Leu	Tyr	Ala	Ala	Arg	Pro	Gly	770	775	780
Arg	Ala	Ser	His	Gly	Asp	Phe	Pro	Leu	Thr	Pro	His	Ala	Ser	Pro	785	790	795
Asp	Arg	Arg	Arg	Val	Val	Ser	Ala	Pro	Thr	Gly	Pro	Leu	Asp	Pro	800	805	810
Ala	Ser	Ala	Ala	Asp	Gly	Leu	Pro	Arg	Pro	Trp	Ser	Pro	Pro	Pro	815	820	825
Thr	Gly	Ser	Leu	Arg	Arg	Pro	Leu	Gly	Pro	His	Ala	Pro	Pro	Ala	830	835	840
Ala	Thr	Leu	Arg	Arg	Thr	His	Thr	Phe	Asn	Ser	Gly	Glu	Ala	Arg	845	850	855
Pro	Gly	Asp	Arg	His	Arg	Gly	Cys	His	Ala	Arg	Pro	Gly	Thr	Asp	860	865	870
Leu	Ala	His	Leu	Leu	Pro	Tyr	Gly	Gly	Ala	Asp	Arg	Thr	Ala	Pro	875	880	885
Pro	Val	Pro															

<210> 36
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 36
gaggacctac cggccggaca g 21

<210> 37
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 37
atacaccg agtactgctg gcag 24

<210> 38
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 38
agacagggca gcggtgctg agcttgagc tggacgcagc tt 42

<210> 39
<211> 2014
<212> DNA
<213> Homo Sapien

<400> 39
agcaactcaa gttcatcatt gtctgagag agaggagcag cgcggttctc 50
ggccgggaca gcagaacgcc aggggaccct cacctgggcg cgccggggca 100
cgggctttga ttgtcctggg gtcgcggaga cccgcgcgcc tgccctgcac 150
gccgggcggc aacctttgca gtgcggttgg ctgctgcgat cggccggcgg 200
gtccctgccg aaggctcggc tgcttctgtc cacctcttac acttcttcat 250
ttatcgggtg atcatttoga gagtccgtct tgtaaagtgt tggcactttg 300
ctactttatt gcttctttct ggcgacagtt ccagcactcg ccgagaccgg 350
cggagaaagg cagctgagcc cggagaagag cgaaatatgg ggaccggggc 400
taaaagcaga cgtcgtcctt cccgcccgtc atttctatat tcaggcagtg 450

gatacatcag ggaataaatt cacatcttct ccaggcgaaa aggtcttcca 500
ggtgaaagtc tcagcaccag aggagcaatt cactagagtt ggagtccagg 550
ttttagaccg aaaagatggg tccttcatag taagatacag aatgtatgca 600
agctacaaaa atctgaaggt ggaaattaaa ttccaagggc aacatgtggc 650
caaatcccca tatattttaa aaggggccggg ttaccatgag aactgtgact 700
gtcctctgca agatagtgca gcctggctac gggagatgaa ctgccctgaa 750
accattgctc agattcagag agatctggca catttccttg ctgtggatcc 800
agaaaagatt gcagtagaaa tcccaaaaag atttggacag aggcagagcc 850
tatgtcacta caccttaaag gataacaagg ttatatcaa gactcatggg 900
gaacatgtag gttttagaat ttcatggat gccatactac tttctttgac 950
tagaaagggt aagatgccag atgtggagct ctttgtaat ttgggagact 1000
ggcctttgga aaaaaagaaa tccaattcaa acatccatcc gatcttttcc 1050
tggtgtggct ccacagattc caaggatata gtgatgccta cgtacgattt 1100
gactgattct gttctggaaa ccatgggccc ggtaagtctg gatatgatgt 1150
ccgtgcaagc taacacgggt cctccctggg aaagcaaaaa ttccactgcc 1200
gtctggagag ggcgagacag ccgcaaagag agactcgagc tggttaaact 1250
cagtagaaaa caccagaac tcatagacgc tgctttcacc aactttttct 1300
tctttaaaca cgatgaaaac ctgtatggtc ccattgtgaa acatatttca 1350
ttttttgatt tcttcaagca taagtatcaa ataatatcg atggcactgt 1400
agcagcttat cgcctgccat atttgctagt tggtgacagt gttgtgctga 1450
agcaggattc catctactat gaacattttt acaatgagct gcagccctgg 1500
aaacactaca ttccagttaa gagcaacctg agcgatctgc tagaaaaact 1550
taaagggcg aaagatcacg atgaagaggc caaaaagata gcaaaagcag 1600
gacaagaatt tgcaagaaat aatctcatgg gcgatgacat attctgttat 1650
tatttcaaac tttccagga atatgccaat ttacaagtga gtgagcccca 1700
aatccgagag ggcagaaaaa gggtagaacc acagactgag gacgacctct 1750
tcccttgtag ttgcatagg aaaaagacca aagatgaact ctgatatgca 1800
aaataacttc tattagaata atggtgctct gaagactctt cttactaaa 1850
aagaagaatt tttttaagta ttaattccat ggacaatata aaatctgtgt 1900

gattgtttgc agtatgaaga cacatttcta cttatgcagt attctcatga 1950
 ctgtacttta aagtacattt ttagaatttt ataataaaac cacctttatt 2000
 ttaaaggaaa aaaa 2014

<210> 40
 <211> 502
 <212> PRT
 <213> Homo Sapien

<400> 40
 Met Phe Gly Thr Leu Leu Leu Tyr Cys Phe Phe Leu Ala Thr Val
 1 5 10 15
 Pro Ala Leu Ala Glu Thr Gly Gly Glu Arg Gln Leu Ser Pro Glu
 20 25 30
 Lys Ser Glu Ile Trp Gly Pro Gly Leu Lys Ala Asp Val Val Leu
 35 40 45
 Pro Ala Arg Tyr Phe Tyr Ile Gln Ala Val Asp Thr Ser Gly Asn
 50 55 60
 Lys Phe Thr Ser Ser Pro Gly Glu Lys Val Phe Gln Val Lys Val
 65 70 75
 Ser Ala Pro Glu Glu Gln Phe Thr Arg Val Gly Val Gln Val Leu
 80 85 90
 Asp Arg Lys Asp Gly Ser Phe Ile Val Arg Tyr Arg Met Tyr Ala
 95 100 105
 Ser Tyr Lys Asn Leu Lys Val Glu Ile Lys Phe Gln Gly Gln His
 110 115 120
 Val Ala Lys Ser Pro Tyr Ile Leu Lys Gly Pro Val Tyr His Glu
 125 130 135
 Asn Cys Asp Cys Pro Leu Gln Asp Ser Ala Ala Trp Leu Arg Glu
 140 145 150
 Met Asn Cys Pro Glu Thr Ile Ala Gln Ile Gln Arg Asp Leu Ala
 155 160 165
 His Phe Pro Ala Val Asp Pro Glu Lys Ile Ala Val Glu Ile Pro
 170 175 180
 Lys Arg Phe Gly Gln Arg Gln Ser Leu Cys His Tyr Thr Leu Lys
 185 190 195
 Asp Asn Lys Val Tyr Ile Lys Thr His Gly Glu His Val Gly Phe
 200 205 210
 Arg Ile Phe Met Asp Ala Ile Leu Leu Ser Leu Thr Arg Lys Val
 215 220 225
 Lys Met Pro Asp Val Glu Leu Phe Val Asn Leu Gly Asp Trp Pro

230										235					240				
Leu	Glu	Lys	Lys	Lys	Ser	Asn	Ser	Asn	Ile	His	Pro	Ile	Phe	Ser					
				245					250					255					
Trp	Cys	Gly	Ser	Thr	Asp	Ser	Lys	Asp	Ile	Val	Met	Pro	Thr	Tyr					
				260					265					270					
Asp	Leu	Thr	Asp	Ser	Val	Leu	Glu	Thr	Met	Gly	Arg	Val	Ser	Leu					
				275					280					285					
Asp	Met	Met	Ser	Val	Gln	Ala	Asn	Thr	Gly	Pro	Pro	Trp	Glu	Ser					
				290					295					300					
Lys	Asn	Ser	Thr	Ala	Val	Trp	Arg	Gly	Arg	Asp	Ser	Arg	Lys	Glu					
				305					310					315					
Arg	Leu	Glu	Leu	Val	Lys	Leu	Ser	Arg	Lys	His	Pro	Glu	Leu	Ile					
				320					325					330					
Asp	Ala	Ala	Phe	Thr	Asn	Phe	Phe	Phe	Phe	Lys	His	Asp	Glu	Asn					
				335					340					345					
Leu	Tyr	Gly	Pro	Ile	Val	Lys	His	Ile	Ser	Phe	Phe	Asp	Phe	Phe					
				350					355					360					
Lys	His	Lys	Tyr	Gln	Ile	Asn	Ile	Asp	Gly	Thr	Val	Ala	Ala	Tyr					
				365					370					375					
Arg	Leu	Pro	Tyr	Leu	Leu	Val	Gly	Asp	Ser	Val	Val	Leu	Lys	Gln					
				380					385					390					
Asp	Ser	Ile	Tyr	Tyr	Glu	His	Phe	Tyr	Asn	Glu	Leu	Gln	Pro	Trp					
				395					400					405					
Lys	His	Tyr	Ile	Pro	Val	Lys	Ser	Asn	Leu	Ser	Asp	Leu	Leu	Glu					
				410					415					420					
Lys	Leu	Lys	Trp	Ala	Lys	Asp	His	Asp	Glu	Glu	Ala	Lys	Lys	Ile					
				425					430					435					
Ala	Lys	Ala	Gly	Gln	Glu	Phe	Ala	Arg	Asn	Asn	Leu	Met	Gly	Asp					
				440					445					450					
Asp	Ile	Phe	Cys	Tyr	Tyr	Phe	Lys	Leu	Phe	Gln	Glu	Tyr	Ala	Asn					
				455					460					465					
Leu	Gln	Val	Ser	Glu	Pro	Gln	Ile	Arg	Glu	Gly	Met	Lys	Arg	Val					
				470					475					480					
Glu	Pro	Gln	Thr	Glu	Asp	Asp	Leu	Phe	Pro	Cys	Thr	Cys	His	Arg					
				485					490					495					
Lys	Lys	Thr	Lys	Asp	Glu	Leu													
				500															

<210> 41
<211> 26

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 41
gaaggtggaa attaaattcc aagggc 26

<210> 42
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 42
cgataagctg ctacagtgcc atcg 24

<210> 43
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 43
gtgactgtcc tctgcaagat agtgcagcct ggctacggga 40

<210> 44
<211> 2395
<212> DNA
<213> Homo Sapien

<400> 44
cctggagccg gaagcgcggc tgcagcaggg cgaggctcca ggtgggggtcg 50
gttccgcata cagcctagcg tgtccacgat gcggctgggc tccgggactt 100
tcgctacctg ttgcgtagcg atcgaggtgc tagggatcgc ggtcttcctt 150
cggggattct tcccggctcc cgttcgttcc tctgccagag cggaacacgg 200
agcggagccc ccagcgcccc aaccctcggc tggagccagt tctaactgga 250
ccacgtgccc accacctctc ttcagtaaag ttgttattgt tctgatagat 300
gcottgagag atgattttgt gtttgggtca aaggggtgtga aatttatgcc 350
ctacacaact taccttgtgg aaaaaggagc atctcacagt tttgtggctg 400
aagcaaagcc acctacagtt actatgcctc gaatcaaggc attgatgacg 450
gggagccttc ctggctttgt cgacgtcatc aggaacctca attctcctgc 500
actgctggaa gacagtgtga taagacaagc aaaagcagct ggaaaaagaa 550

tagtctttta tggagatgaa acctgggtta aattattccc aaagcatttt 600
gtggaatatg atggaacaac ctcatTTTTc gtgtcagatt acacagaggt 650
ggataataat gtcacgagggc atttggataa agtattaaaa agaggagatt 700
gggacatatt aatcctccac tacctggggc tggaccacat tggccacatt 750
tcaggggcca acagccccct gattgggcag aagctgagcg agatggacag 800
cgtgctgatg aagatccaca cctcactgca gtcgaaggag agagagacgc 850
ctttacccaa tttgctgggt ctttgtgggt accatggcat gtctgaaaca 900
ggaagtacag gggcctcctc caccgaggag gtgaatacac ctctgatttt 950
aatcagttct gcgtttgaaa ggaaaccggg tgatatccga catccaaagc 1000
acgtccaata gacggatgtg gctgcgacac tggcgatagc acttggctta 1050
ccgattccaa aagacagtgt agggagcctc ctattcccag ttgtggaagg 1100
aagaccaatg agagagcagt tgagattttt acatttgaat acagtgcagc 1150
ttagtaaaact gttgcaagag aatgtgccgt catatgaaaa agatcctggg 1200
tttgagcagt ttaaaatgtc agaaagattg catgggaact ggatcagact 1250
gtacttggag gaaaagcatt cagaagtcct attcaacctg ggctccaagg 1300
ttctcaggca gtacctggat gctctgaaga cgctgagctt gtccttgagt 1350
gcacaagtgg ccagttctc acctgctcc tgctcagcgt ccacaggca 1400
ctgcacagaa aggctgagct ggaagtccca ctgtcatctc ctgggttttc 1450
tctgctottt tatttgggtga toctggttct ttcggccgtt cacgtcattg 1500
tgtgcacctc agctgaaagt tctgtctact tctgtggcct ctcgtggctg 1550
gcggcaggct gcctttcgtt taccagactc tggttgaaca cctgggtgtgt 1600
gccaaagtgt ggcagtgcc tggacagggg gcctcaggga aggacgtgga 1650
gcagccttat ccaggcctc tgggtgtccc gacacagggt ttcacatctg 1700
tgctgtcagg tcagatgcct cagttcttgg aaagctaggt tcttgcgact 1750
gttaccaagg tgattgtaaa gagctggcgg tcacagagga acaagcccc 1800
cagctgaggg ggtgtgtgaa tcggacagcc tcccagcaga ggtgtgggag 1850
ctgcagctga gggaagaaga gacaatcggc ctggacactc aggaggggtca 1900
aaaggagact tggtcgcacc actcatcctg ccacccccag aatgcacct 1950
gcctcatcag gtccagattt ctttccaagg cggacgtttt ctgttggaat 2000

tcttagtcct tggcctcgga caccttcatt cgtagctgg ggagtgggtg 2050
 tgaggcagtg aagaagaggc ggatgggtcac actcagatcc acagagccca 2100
 ggatcaaggg acccactgca gtggcagcag gactgttggg cccccacccc 2150
 aacctgcac agccctcatc cctctttggc ttgagccgtc agaggccctg 2200
 tgctgagtgt ctgaccgaga cactcacagc tttgtcatca gggcacaggc 2250
 ttctcggag ccaggatgat ctgtgccacg cttgcacctc gggcccatct 2300
 gggctcatgc tctctctcct gctattgaat tagtacctag ctgcacacag 2350
 tatgtagtta ccaaaagaat aaacggcaat aattgagaaa aaaaa 2395

<210> 45

<211> 310

<212> PRT

<213> Homo Sapien

<400> 45

Met	Arg	Leu	Gly	Ser	Gly	Thr	Phe	Ala	Thr	Cys	Cys	Val	Ala	Ile
1				5					10					15
Glu	Val	Leu	Gly	Ile	Ala	Val	Phe	Leu	Arg	Gly	Phe	Phe	Pro	Ala
			20						25					30
Pro	Val	Arg	Ser	Ser	Ala	Arg	Ala	Glu	His	Gly	Ala	Glu	Pro	Pro
			35						40					45
Ala	Pro	Glu	Pro	Ser	Ala	Gly	Ala	Ser	Ser	Asn	Trp	Thr	Thr	Leu
			50						55					60
Pro	Pro	Pro	Leu	Phe	Ser	Lys	Val	Val	Ile	Val	Leu	Ile	Asp	Ala
			65						70					75
Leu	Arg	Asp	Asp	Phe	Val	Phe	Gly	Ser	Lys	Gly	Val	Lys	Phe	Met
			80						85					90
Pro	Tyr	Thr	Thr	Tyr	Leu	Val	Glu	Lys	Gly	Ala	Ser	His	Ser	Phe
			95						100					105
Val	Ala	Glu	Ala	Lys	Pro	Pro	Thr	Val	Thr	Met	Pro	Arg	Ile	Lys
			110						115					120
Ala	Leu	Met	Thr	Gly	Ser	Leu	Pro	Gly	Phe	Val	Asp	Val	Ile	Arg
			125						130					135
Asn	Leu	Asn	Ser	Pro	Ala	Leu	Leu	Glu	Asp	Ser	Val	Ile	Arg	Gln
			140						145					150
Ala	Lys	Ala	Ala	Gly	Lys	Arg	Ile	Val	Phe	Tyr	Gly	Asp	Glu	Thr
			155						160					165
Trp	Val	Lys	Leu	Phe	Pro	Lys	His	Phe	Val	Glu	Tyr	Asp	Gly	Thr
			170						175					180

Thr	Ser	Phe	Phe	Val	Ser	Asp	Tyr	Thr	Glu	Val	Asp	Asn	Asn	Val
				185					190					195
Thr	Arg	His	Leu	Asp	Lys	Val	Leu	Lys	Arg	Gly	Asp	Trp	Asp	Ile
				200					205					210
Leu	Ile	Leu	His	Tyr	Leu	Gly	Leu	Asp	His	Ile	Gly	His	Ile	Ser
				215					220					225
Gly	Pro	Asn	Ser	Pro	Leu	Ile	Gly	Gln	Lys	Leu	Ser	Glu	Met	Asp
				230					235					240
Ser	Val	Leu	Met	Lys	Ile	His	Thr	Ser	Leu	Gln	Ser	Lys	Glu	Arg
				245					250					255
Glu	Thr	Pro	Leu	Pro	Asn	Leu	Leu	Val	Leu	Cys	Gly	Asp	His	Gly
				260					265					270
Met	Ser	Glu	Thr	Gly	Ser	His	Gly	Ala	Ser	Ser	Thr	Glu	Glu	Val
				275					280					285
Asn	Thr	Pro	Leu	Ile	Leu	Ile	Ser	Ser	Ala	Phe	Glu	Arg	Lys	Pro
				290					295					300
Gly	Asp	Ile	Arg	His	Pro	Lys	His	Val	Gln					
				305					310					

<210> 46
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 46
 cgggactttc gctacctgtt gc 22

<210> 47
 <211> 26
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 47
 catcatattc cacaaaatgc tttggg 26

<210> 48
 <211> 38
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 48

ccttcgggga ttcttcccgg ctcccgttcg ttcctctg 38

<210> 49

<211> 918

<212> DNA

<213> Homo Sapien

<400> 49

agccaggcag cacatcacag cgggaggagc tgtcccaggt ggcccagctc 50
agcaatggca atgggggtcc ccagagtcac tctgctctgc ctctttgggg 100
ctgcgctctg cctgacaggg tcccaagccc tgcagtgcta cagctttgag 150
cacacctact ttggccccctt tgacctcagg gccatgaagc tgcccagcat 200
ctcctgtcct catgagtgtt ttgaggctat cctgtctctg gacaccgggt 250
atcgcgcgcc ggtgaccctg gtgcggaagg gctgctggac cgggcctcct 300
gcgggccaga cgcaatcgaa cccggacgag ctgccgccag actactcggg 350
ggtgcgcgcc tgcacaactg acaaatgcaa cgcccacctc atgactcatg 400
acgccctccc caacctgagc caagcaccgc acccgccgac gctcagcggc 450
gccgagtgtt acgcctgtat cgggggtccac caggatgact gcgctatcgg 500
caggtcccga cgagtccagt gtcaccagga ccagaccgcc tgcttccagg 550
gcagtggcag aatgacagtt ggcaatttct cagtccctgt gtacatcaga 600
acctgccacc ggccctcctg caccaccgag ggcaccacca gccctggac 650
agccatcgac ctccaggggt cctgctgtga ggggtacctc tgcaacagga 700
aatccatgac ccagcccttc accagtgtt cagccaccac cctccccga 750
gcactacagg tcttgccct gctcctccca gtcctcctgc tgggtggggct 800
ctcagcatag accgcccctc caggatgtg gggacagggc tcacacacct 850
cattcttgct gcttcagccc ctatcacata gtcactgga aatgatgtt 900
aaagtaagaa ttgcaaaa 918

<210> 50

<211> 251

<212> PRT

<213> Homo Sapien

<400> 50

Met	Ala	Met	Gly	Val	Pro	Arg	Val	Ile	Leu	Leu	Cys	Leu	Phe	Gly
1				5					10					15
Ala	Ala	Leu	Cys	Leu	Thr	Gly	Ser	Gln	Ala	Leu	Gln	Cys	Tyr	Ser
				20					25					30

Phe	Glu	His	Thr	Tyr	Phe	Gly	Pro	Phe	Asp	Leu	Arg	Ala	Met	Lys
				35					40					45
Leu	Pro	Ser	Ile	Ser	Cys	Pro	His	Glu	Cys	Phe	Glu	Ala	Ile	Leu
				50					55					60
Ser	Leu	Asp	Thr	Gly	Tyr	Arg	Ala	Pro	Val	Thr	Leu	Val	Arg	Lys
				65					70					75
Gly	Cys	Trp	Thr	Gly	Pro	Pro	Ala	Gly	Gln	Thr	Gln	Ser	Asn	Pro
				80					85					90
Asp	Ala	Leu	Pro	Pro	Asp	Tyr	Ser	Val	Val	Arg	Gly	Cys	Thr	Thr
				95					100					105
Asp	Lys	Cys	Asn	Ala	His	Leu	Met	Thr	His	Asp	Ala	Leu	Pro	Asn
				110					115					120
Leu	Ser	Gln	Ala	Pro	Asp	Pro	Pro	Thr	Leu	Ser	Gly	Ala	Glu	Cys
				125					130					135
Tyr	Ala	Cys	Ile	Gly	Val	His	Gln	Asp	Asp	Cys	Ala	Ile	Gly	Arg
				140					145					150
Ser	Arg	Arg	Val	Gln	Cys	His	Gln	Asp	Gln	Thr	Ala	Cys	Phe	Gln
				155					160					165
Gly	Ser	Gly	Arg	Met	Thr	Val	Gly	Asn	Phe	Ser	Val	Pro	Val	Tyr
				170					175					180
Ile	Arg	Thr	Cys	His	Arg	Pro	Ser	Cys	Thr	Thr	Glu	Gly	Thr	Thr
				185					190					195
Ser	Pro	Trp	Thr	Ala	Ile	Asp	Leu	Gln	Gly	Ser	Cys	Cys	Glu	Gly
				200					205					210
Tyr	Leu	Cys	Asn	Arg	Lys	Ser	Met	Thr	Gln	Pro	Phe	Thr	Ser	Ala
				215					220					225
Ser	Ala	Thr	Thr	Pro	Pro	Arg	Ala	Leu	Gln	Val	Leu	Ala	Leu	Leu
				230					235					240
Leu	Pro	Val	Leu	Leu	Leu	Val	Gly	Leu	Ser	Ala				
				245					250					

<210> 51
 <211> 3288
 <212> DNA
 <213> Homo Sapien

<400> 51
 cccacgcgtc cgggacagat gaacttaaaa gagaagcttt agctgccaaa 50
 gattgggaaa gggaaaggac aaaaaagacc cctgggctac acggcgtagg 100
 tgcagggttt cctactgctg ttcttttatg ctgggagctg tggctgtaac 150
 caactaggaa ataacgtatg cagcagctat ggctgtcaga gagttgtgct 200

tcccaagaca aaggcaagtc ctgtttcttt ttcttttttg gggagtgtcc 250
ttggcagggtt ctgggttttg acgttattcg gtgactgagg aaacagagaa 300
aggatccttt gtggtcaatc tggcaaagga tctgggacta gcagaggggg 350
agctggctgc aaggggaacc agggtggttt ccgatgataa caaacaatac 400
ctgctcctgg attcacatac cggaatttg ctcacaaatg agaaactgga 450
ccgagagaag ctgtgtggcc ctaaagagcc ctgtatgctg tatttccaaa 500
ttttaatgga tgatcccttt cagatttacc gggctgagct gagagtcagg 550
gatataaatg atcacgcgcc agtatttcag gacaaagaaa cagtcttaaa 600
aatatcagaa aatacagctg aagggacagc atttagacta gaaagagcac 650
aggatccaga tggaggactt aacggatatc aaaactacac gatcagcccc 700
aactcttttt tccatattaa cattagtggc ggtgatgaag gcatgatata 750
tccagagcta gtgttgga aagcactgga tcgggaggag cagggagagc 800
tcagcttaac cctcacagcg ctggatggtg ggtctccatc caggctctggg 850
acctctactg tacgcacgtg tgtcttggac gtcaatgaca atgccccaca 900
gtttgccag gctctgtatg agaccaggc tccagaaaac agccccattg 950
ggttccttat tgtaaggtg tgggcagaag atgtagactc tggagtcaac 1000
gcggaagtat cctattcatt ttttgatgcc tcagaaaata ttcgaacgac 1050
ctttcaaate aatccttttt ctggggaaat ctttctcaga gaattgcttg 1100
attatgagtt agtaaattct tacaaaataa atatacaggc aatggacggg 1150
ggaggccttt ctgcaagatg tagggtttta gtggaagtat tggacaccaa 1200
tgacaatccc cctgaactga tcgtatcatc attttccaac tctgttgctg 1250
agaattctcc tgagacgccg ctggctgttt ttaagattaa tgacagagac 1300
tctggagaaa atggaaagat ggtttgctac attcaagaga atctgccatt 1350
cctactaaaa ctttctgtgg agaattttta catcctaatt acagaaggcg 1400
cgctggacag agagatcaga gccgagtaca acatcactat caccgtcact 1450
gacttgggga caccagggt gaaaaccgag cacaacataa cggtcctggt 1500
ctccgacgtc aatgacaacg ccccgccctt cacccaaacc tcctacacc 1550
tgttcgtccg cgagaacaac agccccgcc tgcacatcgg cagcgtcagc 1600
gccacagaca gagactcggg caccaacgcc caggtcacct actcgtgct 1650

gccgccccaa gaccgcgacc tgccccctgc ctccttggtc tccatcaacg 1700
 cggacaacgg ccacctgttc gccctcaggt cgctggacta cgaggccctg 1750
 caggctttcg agttccgcgt gggcgccaca gaccgcgggt ccccgcgct 1800
 gagcagagag gcgctggtgc gcgtgctggt gctggacgcc aacgacaact 1850
 cgcccttcgt gctgtaccgc ctgcagaacg gctccgcgcc ctgcaccgag 1900
 ctggtgcccc gggcggccga gccgggctac ctggtgacca aggtggtggc 1950
 ggtggacggc gactcgggcc agaagcctg gctgtcgtac cagctgctca 2000
 aggccacgga gcccgggctg ttcggtgtgt gggcgccaaa tggggaggtg 2050
 cgcaccgcca ggctgctgag cgagcgcgac gcagccaagc acaggctcgt 2100
 ggtgcttgct aaggacaatg gcgagcctcc tcgctcggcc accgccacgc 2150
 tgcacttgct cctggtggac ggcttctccc agccctacct gcctctcccg 2200
 gaggcggccc cggcccaggc ccaggccgag gccgacttgc tcaccgtcta 2250
 cctggtggtg gcgttgacct cgggtgtcttc gctcttcttc ctctcggtgc 2300
 tcctgttcgt ggcggtgcgg ctgtgcagga ggagcagggc ggcctcgggtg 2350
 ggtcgctgct cggtgcccga gggctctttt ccagggcata tgggtggacgt 2400
 gagggcgct gagacctgt ccagagcta ccagtatgag gtgtgtctga 2450
 cgggaggccc cgggaccagt gagttcaagt tcttgaaacc agttatttcg 2500
 gatattcagg cacagggccc tgggaggaag ggtgaagaaa attccacctt 2550
 ccgaaatagc tttggattta atattcagta aagtctgttt ttagtttcat 2600
 atacttttgg tgtgttacat agccatgttt ctattagttt acttttaaact 2650
 ctcaaattta agttattatg caacttcaag cattattttc aagtagtata 2700
 cccctgtggt tttacaatgt ttcattcattt ttttgatta ataacaactg 2750
 ggtttaattt aatgagtatt tttttctaaa tgatagtgtt aaggttttaa 2800
 ttctttccaa ctgcccagg aattaattac tattatatct cattacagaa 2850
 atctgagggt ttgattcatt tcagagcttg catctcatga ttctaatac 2900
 ttctgtctat agtgtacttg ctctatttaa gaaggcatat ctacatttcc 2950
 aaactcattc taacattcta tatattcgtg tttgaaaacc atgtcattta 3000
 tttctacatc atgtatttaa aaagaaatat ttcttacta ctatgctcat 3050
 gacaaaatga aacaaagcat attgtgagca atactgaaca tcaataatac 3100

ccttagttta tataacttatt attttatctt taagcatgct acttttactt 3150
 ggccaatatt ttcttatggt aacttttgct gatgtataaa acagactatg 3200
 ccttataatt gaaataaaat tataatctgc ctgaaaatga ataaaaataa 3250
 aacattttga aatgtgaaaa aaaaaaaaaa aaaaaaaaaa 3288

<210> 52
 <211> 800
 <212> PRT
 <213> Homo Sapien

<400> 52
 Met Ala Val Arg Glu Leu Cys Phe Pro Arg Gln Arg Gln Val Leu
 1 5 10 15
 Phe Leu Phe Leu Phe Trp Gly Val Ser Leu Ala Gly Ser Gly Phe
 20 25 30
 Gly Arg Tyr Ser Val Thr Glu Glu Thr Glu Lys Gly Ser Phe Val
 35 40 45
 Val Asn Leu Ala Lys Asp Leu Gly Leu Ala Glu Gly Glu Leu Ala
 50 55 60
 Ala Arg Gly Thr Arg Val Val Ser Asp Asp Asn Lys Gln Tyr Leu
 65 70 75
 Leu Leu Asp Ser His Thr Gly Asn Leu Leu Thr Asn Glu Lys Leu
 80 85 90
 Asp Arg Glu Lys Leu Cys Gly Pro Lys Glu Pro Cys Met Leu Tyr
 95 100 105
 Phe Gln Ile Leu Met Asp Asp Pro Phe Gln Ile Tyr Arg Ala Glu
 110 115 120
 Leu Arg Val Arg Asp Ile Asn Asp His Ala Pro Val Phe Gln Asp
 125 130 135
 Lys Glu Thr Val Leu Lys Ile Ser Glu Asn Thr Ala Glu Gly Thr
 140 145 150
 Ala Phe Arg Leu Glu Arg Ala Gln Asp Pro Asp Gly Gly Leu Asn
 155 160 165
 Gly Ile Gln Asn Tyr Thr Ile Ser Pro Asn Ser Phe Phe His Ile
 170 175 180
 Asn Ile Ser Gly Gly Asp Glu Gly Met Ile Tyr Pro Glu Leu Val
 185 190 195
 Leu Asp Lys Ala Leu Asp Arg Glu Glu Gln Gly Glu Leu Ser Leu
 200 205 210
 Thr Leu Thr Ala Leu Asp Gly Gly Ser Pro Ser Arg Ser Gly Thr
 215 220 225

Ser Thr Val Arg	Ile Val Val Leu Asp	Val Asn Asp Asn Ala Pro
	230	235 240
Gln Phe Ala Gln	Ala Leu Tyr Glu Thr	Gln Ala Pro Glu Asn Ser
	245	250 255
Pro Ile Gly Phe	Leu Ile Val Lys Val	Trp Ala Glu Asp Val Asp
	260	265 270
Ser Gly Val Asn	Ala Glu Val Ser Tyr	Ser Phe Phe Asp Ala Ser
	275	280 285
Glu Asn Ile Arg	Thr Thr Phe Gln Ile	Asn Pro Phe Ser Gly Glu
	290	295 300
Ile Phe Leu Arg	Glu Leu Leu Asp Tyr	Glu Leu Val Asn Ser Tyr
	305	310 315
Lys Ile Asn Ile	Gln Ala Met Asp Gly	Gly Gly Leu Ser Ala Arg
	320	325 330
Cys Arg Val Leu	Val Glu Val Leu Asp	Thr Asn Asp Asn Pro Pro
	335	340 345
Glu Leu Ile Val	Ser Ser Phe Ser Asn	Ser Val Ala Glu Asn Ser
	350	355 360
Pro Glu Thr Pro	Leu Ala Val Phe Lys	Ile Asn Asp Arg Asp Ser
	365	370 375
Gly Glu Asn Gly	Lys Met Val Cys Tyr	Ile Gln Glu Asn Leu Pro
	380	385 390
Phe Leu Leu Lys	Pro Ser Val Glu Asn	Phe Tyr Ile Leu Ile Thr
	395	400 405
Glu Gly Ala Leu	Asp Arg Glu Ile Arg	Ala Glu Tyr Asn Ile Thr
	410	415 420
Ile Thr Val Thr	Asp Leu Gly Thr Pro	Arg Leu Lys Thr Glu His
	425	430 435
Asn Ile Thr Val	Leu Val Ser Asp Val	Asn Asp Asn Ala Pro Ala
	440	445 450
Phe Thr Gln Thr	Ser Tyr Thr Leu Phe	Val Arg Glu Asn Asn Ser
	455	460 465
Pro Ala Leu His	Ile Gly Ser Val Ser	Ala Thr Asp Arg Asp Ser
	470	475 480
Gly Thr Asn Ala	Gln Val Thr Tyr Ser	Leu Leu Pro Pro Gln Asp
	485	490 495
Pro His Leu Pro	Leu Ala Ser Leu Val	Ser Ile Asn Ala Asp Asn
	500	505 510
Gly His Leu Phe	Ala Leu Arg Ser Leu	Asp Tyr Glu Ala Leu Gln

515					520					525				
Ala	Phe	Glu	Phe	Arg	Val	Gly	Ala	Thr	Asp	Arg	Gly	Ser	Pro	Ala
				530					535					540
Leu	Ser	Arg	Glu	Ala	Leu	Val	Arg	Val	Leu	Val	Leu	Asp	Ala	Asn
				545					550					555
Asp	Asn	Ser	Pro	Phe	Val	Leu	Tyr	Pro	Leu	Gln	Asn	Gly	Ser	Ala
				560					565					570
Pro	Cys	Thr	Glu	Leu	Val	Pro	Arg	Ala	Ala	Glu	Pro	Gly	Tyr	Leu
				575					580					585
Val	Thr	Lys	Val	Val	Ala	Val	Asp	Gly	Asp	Ser	Gly	Gln	Asn	Ala
				590					595					600
Trp	Leu	Ser	Tyr	Gln	Leu	Leu	Lys	Ala	Thr	Glu	Pro	Gly	Leu	Phe
				605					610					615
Gly	Val	Trp	Ala	His	Asn	Gly	Glu	Val	Arg	Thr	Ala	Arg	Leu	Leu
				620					625					630
Ser	Glu	Arg	Asp	Ala	Ala	Lys	His	Arg	Leu	Val	Val	Leu	Val	Lys
				635					640					645
Asp	Asn	Gly	Glu	Pro	Pro	Arg	Ser	Ala	Thr	Ala	Thr	Leu	His	Leu
				650					655					660
Leu	Leu	Val	Asp	Gly	Phe	Ser	Gln	Pro	Tyr	Leu	Pro	Leu	Pro	Glu
				665					670					675
Ala	Ala	Pro	Ala	Gln	Ala	Gln	Ala	Glu	Ala	Asp	Leu	Leu	Thr	Val
				680					685					690
Tyr	Leu	Val	Val	Ala	Leu	Ala	Ser	Val	Ser	Ser	Leu	Phe	Leu	Leu
				695					700					705
Ser	Val	Leu	Leu	Phe	Val	Ala	Val	Arg	Leu	Cys	Arg	Arg	Ser	Arg
				710					715					720
Ala	Ala	Ser	Val	Gly	Arg	Cys	Ser	Val	Pro	Glu	Gly	Pro	Phe	Pro
				725					730					735
Gly	His	Leu	Val	Asp	Val	Arg	Gly	Ala	Glu	Thr	Leu	Ser	Gln	Ser
				740					745					750
Tyr	Gln	Tyr	Glu	Val	Cys	Leu	Thr	Gly	Gly	Pro	Gly	Thr	Ser	Glu
				755					760					765
Phe	Lys	Phe	Leu	Lys	Pro	Val	Ile	Ser	Asp	Ile	Gln	Ala	Gln	Gly
				770					775					780
Pro	Gly	Arg	Lys	Gly	Glu	Glu	Asn	Ser	Thr	Phe	Arg	Asn	Ser	Phe
				785					790					795
Gly	Phe	Asn	Ile	Gln										
				800										

<210> 53
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 53
ctgggggagtg tccttggcag gttc 24

<210> 54
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 54
cagcatacag ggctcttttag ggcacac 27

<210> 55
<211> 46
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 55
cggtgactga ggaaacagag aaaggatcct ttgtgggtcaa tctggc 46

<210> 56
<211> 2242
<212> DNA
<213> Homo Sapien

<220>
<221> unsure
<222> 2181
<223> unknown base

<400> 56
gaatgaatac ctccgaagcc gctttgttct ccagatgtga atagctccac 50
tataccagcc tcgtcttcct tccgggggac aacgtgggtc agggcacaga 100
gagatattta atgtcaccct cttgggggctt tcatgggact ccctctgcca 150
catttttttg aggttgggaa agttgctaga ggcttcagaa ctccagccta 200
atggatccca aactcgggag aatggctgcg tccctgctgg ctgtgctgct 250
gctgctgctg gagcgcgga tgttctcctc accctccccg cccccggcgc 300
tgttagagaa agtcttcag tacattgacc tccatcagga tgaatttgctg 350

cagacgctga aggagtgggt ggccatcgag agcgactctg tccagcctgt 400
gcctcgcttc agacaagagc tcttcagaat gatggccgtg gctgcggaca 450
cgctgcagcg cctggggggc cgtgtggcct cggtggacat gggtcctcag 500
cagctgcccc atggtcagag tcttccaata cctcccgta tcttgccga 550
actggggagc gatccacga aaggcaccgt gtgcttctac ggccacttg 600
acgtgcagcc tgctgaccgg ggcgatgggt ggctcacgga ccctatgtg 650
ctgacggagg tagacgggaa actttatgga cgaggagcga ccgacaacaa 700
aggccctgtc ttggcttgga tcaatgctgt gagcgccctc agagccctgg 750
agcaagatct tctgtgaat atcaaattca tcattgaggg gatggaagag 800
gctggctctg ttgccctgga ggaacttggt gaaaaagaaa aggaccgatt 850
cttctctggt gtggactaca ttgtaatttc agataacctg tggatcagcc 900
aaaggaagcc agcaatcact tatggaaccg gggggaacag ctacttcatg 950
gtggaggtga aatgcagaga ccaggatctt cactcaggaa cctttggtgg 1000
catccttcat gaaccaatgg ctgatctggt tgctcttctc ggtagcctgg 1050
tagactcgtc tggatcatatc ctggctccctg gaatctatga tgaagtgggt 1100
cctcttacag aagaggaaat aaatacatatc aaagccatcc atctagacct 1150
agaagaatac cggaatagca gccgggttga gaaatttctg ttcgatacta 1200
aggaggagat tctaatagcac ctctggaggt acccatctct ttctattcat 1250
gggatcgagg gcgcgtttga tgagcctgga actaaaacag tcatacctgg 1300
ccgagttata ggaaaatttt caatccgtct agtcctcac atgaatgtgt 1350
ctgcggtgga aaaacagggtg acacgacatc ttgaagatgt gttctccaaa 1400
agaaatagtt ccaacaagat gggtgtttcc atgactctag gactacacc 1450
gtggattgca aatattgatg acaccagta tctgcagca aaaagagcga 1500
tcagaacagt gtttgaaca gaaccagata tgatccggga tggatccacc 1550
attccaattg ccaaaatggt ccaggagatc gtccacaaga gcgtgggtgct 1600
aattccgctg ggagctgttg atgatggaga acattcgag aatgagaaaa 1650
tcaacagggtg gaactacata gagggaaacca aattatttgc tgcctttttc 1700
ttagagatgg ccagctcca ttaatcaca gaaccttcta gtctgatctg 1750
atccactgac agattcacct cccccacatc cctagacagg gatggaatgt 1800

aaatatccag agaatttggg tctagtatag tacattttcc cttccattta 1850
 aaatgtcttg ggatatctgg atcagtaata aaatatttca aaggcacaga 1900
 tgttggaat ggtttaagggt cccccactgc acaccttcct caagtcata 1950
 ctgcttgacag caacttgatt tccccaaagtc ctgtgcaata gcccaggat 2000
 tggattcctt ccaacctttt agcatatctc caaccttgca atttgattgg 2050
 cataatcact cgggtttgct ttctaggtcc tcaagtgtc gtgacacata 2100
 atcattccat ccaatgatcg cctttgcttt accactcttt ccttttatct 2150
 tattaataaa aatgttggtc tccaccactg nctcccaaaa aaaaaaaaaa 2200
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aa 2242

<210> 57
 <211> 507
 <212> PRT
 <213> Homo Sapien

<400> 57
 Met Asp Pro Lys Leu Gly Arg Met Ala Ala Ser Leu Leu Ala Val
 1 5 10 15
 Leu Leu Leu Leu Leu Glu Arg Gly Met Phe Ser Ser Pro Ser Pro
 20 25 30
 Pro Pro Ala Leu Leu Glu Lys Val Phe Gln Tyr Ile Asp Leu His
 35 40 45
 Gln Asp Glu Phe Val Gln Thr Leu Lys Glu Trp Val Ala Ile Glu
 50 55 60
 Ser Asp Ser Val Gln Pro Val Pro Arg Phe Arg Gln Glu Leu Phe
 65 70 75
 Arg Met Met Ala Val Ala Ala Asp Thr Leu Gln Arg Leu Gly Ala
 80 85 90
 Arg Val Ala Ser Val Asp Met Gly Pro Gln Gln Leu Pro Asp Gly
 95 100 105
 Gln Ser Leu Pro Ile Pro Pro Val Ile Leu Ala Glu Leu Gly Ser
 110 115 120
 Asp Pro Thr Lys Gly Thr Val Cys Phe Tyr Gly His Leu Asp Val
 125 130 135
 Gln Pro Ala Asp Arg Gly Asp Gly Trp Leu Thr Asp Pro Tyr Val
 140 145 150
 Leu Thr Glu Val Asp Gly Lys Leu Tyr Gly Arg Gly Ala Thr Asp
 155 160 165
 Asn Lys Gly Pro Val Leu Ala Trp Ile Asn Ala Val Ser Ala Phe

170										175					180				
Arg	Ala	Leu	Glu	Gln	Asp	Leu	Pro	Val	Asn	Ile	Lys	Phe	Ile	Ile					
				185					190					195					
Glu	Gly	Met	Glu	Glu	Ala	Gly	Ser	Val	Ala	Leu	Glu	Glu	Leu	Val					
				200					205					210					
Glu	Lys	Glu	Lys	Asp	Arg	Phe	Phe	Ser	Gly	Val	Asp	Tyr	Ile	Val					
				215					220					225					
Ile	Ser	Asp	Asn	Leu	Trp	Ile	Ser	Gln	Arg	Lys	Pro	Ala	Ile	Thr					
				230					235					240					
Tyr	Gly	Thr	Arg	Gly	Asn	Ser	Tyr	Phe	Met	Val	Glu	Val	Lys	Cys					
				245					250					255					
Arg	Asp	Gln	Asp	Phe	His	Ser	Gly	Thr	Phe	Gly	Gly	Ile	Leu	His					
				260					265					270					
Glu	Pro	Met	Ala	Asp	Leu	Val	Ala	Leu	Leu	Gly	Ser	Leu	Val	Asp					
				275					280					285					
Ser	Ser	Gly	His	Ile	Leu	Val	Pro	Gly	Ile	Tyr	Asp	Glu	Val	Val					
				290					295					300					
Pro	Leu	Thr	Glu	Glu	Glu	Ile	Asn	Thr	Tyr	Lys	Ala	Ile	His	Leu					
				305					310					315					
Asp	Leu	Glu	Glu	Tyr	Arg	Asn	Ser	Ser	Arg	Val	Glu	Lys	Phe	Leu					
				320					325					330					
Phe	Asp	Thr	Lys	Glu	Glu	Ile	Leu	Met	His	Leu	Trp	Arg	Tyr	Pro					
				335					340					345					
Ser	Leu	Ser	Ile	His	Gly	Ile	Glu	Gly	Ala	Phe	Asp	Glu	Pro	Gly					
				350					355					360					
Thr	Lys	Thr	Val	Ile	Pro	Gly	Arg	Val	Ile	Gly	Lys	Phe	Ser	Ile					
				365					370					375					
Arg	Leu	Val	Pro	His	Met	Asn	Val	Ser	Ala	Val	Glu	Lys	Gln	Val					
				380					385					390					
Thr	Arg	His	Leu	Glu	Asp	Val	Phe	Ser	Lys	Arg	Asn	Ser	Ser	Asn					
				395					400					405					
Lys	Met	Val	Val	Ser	Met	Thr	Leu	Gly	Leu	His	Pro	Trp	Ile	Ala					
				410					415					420					
Asn	Ile	Asp	Asp	Thr	Gln	Tyr	Leu	Ala	Ala	Lys	Arg	Ala	Ile	Arg					
				425					430					435					
Thr	Val	Phe	Gly	Thr	Glu	Pro	Asp	Met	Ile	Arg	Asp	Gly	Ser	Thr					
				440					445					450					
Ile	Pro	Ile	Ala	Lys	Met	Phe	Gln	Glu	Ile	Val	His	Lys	Ser	Val					
				455					460					465					

Val Leu Ile Pro Leu Gly Ala Val Asp Asp Gly Glu His Ser Gln
470 475 480

Asn Glu Lys Ile Asn Arg Trp Asn Tyr Ile Glu Gly Thr Lys Leu
485 490 495

Phe Ala Ala Phe Phe Leu Glu Met Ala Gln Leu His
500 505

<210> 58

<211> 1470

<212> DNA

<213> Homo Sapien

<400> 58

ctcggctgga tttaaggttg ccgctagccg cctgggaatt taagggaccc 50
acactacctt cccgaagttg aaggcaagcg gtgattgttt gtagacggcg 100
ctttgtcatg ggacctgtgc ggttggaat attgcttttc ctttttttg 150
ccgtgcacga ggcttgggct gggatgttga aggaggagga cgatgacaca 200
gaacgcttgc ccagcaaagtg cgaagtgtgt aagctgctga gcacagagct 250
acaggcggaa ctgagtcgca ccggtcgatc tcgagaggtg ctggagctgg 300
ggcaggtgct ggatacaggc aagaggaaga gacacgtgcc ttacagcgtt 350
tcagagacaa ggctggaaga ggcttagag aatttatgtg agcggatcct 400
ggactatagt gttcacgctg agcgcaaggg ctcactgaga tatgccaagg 450
gtcagagtca gaccatggca aactgaaag gcctagtga gaaggggggtg 500
aaggtggatc tggggatccc tctggagctt tgggatgagc ccagcgtgga 550
ggtcacatac ctcaagaagc agtgtgagac catgttgag gagtttgaag 600
acattgtggg agactggtac ttccaccatc aggagcagcc cctacaaaat 650
tttctctgtg aaggtcatgt gctcccagct gctgaaactg catgtctaca 700
ggaaacttgg actggaaagg agatcacaga tggggaagag aaaacagaag 750
gggaggaaga gcaggaggag gaggaggaag aggaggaaga ggaaggggga 800
gacaagatga ccaagacagg aagccacccc aaacttgacc gagaagatct 850
ttgacccttg cctttgagcc ccaggaggg gaagggatca tggagagccc 900
tctaaagcct gcactctccc tgctccacag ctttcagggt gtgtttatga 950
gtgactccac ccaagcttgt agctgttctc tcccatctaa cctcaggcaa 1000
gatcctggtg aaacagcatg acatggcttc tggggtggag ggtgggggtg 1050
gaggtcctgc tcctagagat gaactctatc cagcccctta attggcaggt 1100

gtatgtgctg acagtactga aagctttcct ctttaactga tcccaccccc 1150
 acccaaaagt cagcagtggc actggagctg tgggctttgg ggaagtcact 1200
 tagctcctta aggtctgttt ttagaccctt ccaaggaaga ggccagaacg 1250
 gacattctct gcgatctata tacattgcct gtatccagga ggctacacac 1300
 cagcaaaccg tgaaggagaa tgggacactg ggtcatggcc tggagttgct 1350
 gataatttag gtgggataga tacttgggtct acttaagctc aatgtaaccc 1400
 agagcccacc atatagtttt ataggtgctc aactttctat atcgctatta 1450
 aacttttttc tttttttcta 1470

<210> 59

<211> 248

<212> PRT

<213> Homo Sapien

<400> 59

Met	Gly	Pro	Val	Arg	Leu	Gly	Ile	Leu	Leu	Phe	Leu	Phe	Leu	Ala	1	5	10	15
Val	His	Glu	Ala	Trp	Ala	Gly	Met	Leu	Lys	Glu	Glu	Asp	Asp	Asp	20	25	30	
Thr	Glu	Arg	Leu	Pro	Ser	Lys	Cys	Glu	Val	Cys	Lys	Leu	Leu	Ser	35	40	45	
Thr	Glu	Leu	Gln	Ala	Glu	Leu	Ser	Arg	Thr	Gly	Arg	Ser	Arg	Glu	50	55	60	
Val	Leu	Glu	Leu	Gly	Gln	Val	Leu	Asp	Thr	Gly	Lys	Arg	Lys	Arg	65	70	75	
His	Val	Pro	Tyr	Ser	Val	Ser	Glu	Thr	Arg	Leu	Glu	Glu	Ala	Leu	80	85	90	
Glu	Asn	Leu	Cys	Glu	Arg	Ile	Leu	Asp	Tyr	Ser	Val	His	Ala	Glu	95	100	105	
Arg	Lys	Gly	Ser	Leu	Arg	Tyr	Ala	Lys	Gly	Gln	Ser	Gln	Thr	Met	110	115	120	
Ala	Thr	Leu	Lys	Gly	Leu	Val	Gln	Lys	Gly	Val	Lys	Val	Asp	Leu	125	130	135	
Gly	Ile	Pro	Leu	Glu	Leu	Trp	Asp	Glu	Pro	Ser	Val	Glu	Val	Thr	140	145	150	
Tyr	Leu	Lys	Lys	Gln	Cys	Glu	Thr	Met	Leu	Glu	Glu	Phe	Glu	Asp	155	160	165	
Ile	Val	Gly	Asp	Trp	Tyr	Phe	His	His	Gln	Glu	Gln	Pro	Leu	Gln	170	175	180	

Asn	Phe	Leu	Cys	Glu	Gly	His	Val	Leu	Pro	Ala	Ala	Glu	Thr	Ala
				185					190					195
Cys	Leu	Gln	Glu	Thr	Trp	Thr	Gly	Lys	Glu	Ile	Thr	Asp	Gly	Glu
			200						205					210
Glu	Lys	Thr	Glu	Gly	Glu	Glu	Glu	Gln	Glu	Glu	Glu	Glu	Glu	Glu
			215						220					225
Glu	Glu	Glu	Glu	Gly	Gly	Asp	Lys	Met	Thr	Lys	Thr	Gly	Ser	His
			230						235					240
Pro	Lys	Leu	Asp	Arg	Glu	Asp	Leu							
			245											

<210> 60
 <211> 890
 <212> DNA
 <213> Homo Sapien

<400> 60
 aagtacttgt gtccgggtgg tggactggat tagctgcgga gccctggaag 50
 ctgcctgtcc ttctccctgt gcttaaccag aggtgcccat ggggtggaca 100
 atgaggctgg tcacagcagc actgttactg ggtctcatga tgggtggcac 150
 tggagacgag gatgagaaca gcccgtgtgc ccatgaggcc ctcttgagc 200
 aggacaccct cttttgccag ggccttgaag ttttctaccc agagttgggg 250
 aacattggct gcaaggttgt tcttgattgt aacaactaca gacagaagat 300
 cacctcctgg atggagccga tagtcaagtt cccggggggc gtggacggcg 350
 caacctatat cctggtgatg gtggatccag atgccctag cagagcagaa 400
 cccagacaga gattctggag acattggctg gtaacagata tcaagggcgc 450
 cgacctgaag aaagggaaga ttcagggccca ggagttatca gcctaccagg 500
 ctccctcccc accggcacac agtggcttcc atcgtacca gttctttgtc 550
 tatcttcagg aaggaaaagt catctctctc cttccaagg aaaacaaaac 600
 tcgaggctct tggaaaatgg acagatttct gaaccgttc cacctgggcg 650
 aacctgaagc aagcaccag ttcattgacc agaactacca ggactacca 700
 accctccagg ctcccagagg aagggccagc gagcccaagc aaaaaaccag 750
 gcagagatag ctgcctgcta gatagccgc tttgcatcc gggcatgtgg 800
 ccacactgct caccaccgac gatgtgggta tggaaccccc tctggataca 850
 gaacccttc ttttccaaat taacaaaaaa aatcatcaaa 890

<210> 61

<211> 223
 <212> PRT
 <213> Homo Sapien

<400> 61

Met	Gly	Trp	Thr	Met	Arg	Leu	Val	Thr	Ala	Ala	Leu	Leu	Leu	Gly	1	5	10	15
Leu	Met	Met	Val	Val	Thr	Gly	Asp	Glu	Asp	Glu	Asn	Ser	Pro	Cys	20	25	30	
Ala	His	Glu	Ala	Leu	Leu	Asp	Glu	Asp	Thr	Leu	Phe	Cys	Gln	Gly	35	40	45	
Leu	Glu	Val	Phe	Tyr	Pro	Glu	Leu	Gly	Asn	Ile	Gly	Cys	Lys	Val	50	55	60	
Val	Pro	Asp	Cys	Asn	Asn	Tyr	Arg	Gln	Lys	Ile	Thr	Ser	Trp	Met	65	70	75	
Glu	Pro	Ile	Val	Lys	Phe	Pro	Gly	Ala	Val	Asp	Gly	Ala	Thr	Tyr	80	85	90	
Ile	Leu	Val	Met	Val	Asp	Pro	Asp	Ala	Pro	Ser	Arg	Ala	Glu	Pro	95	100	105	
Arg	Gln	Arg	Phe	Trp	Arg	His	Trp	Leu	Val	Thr	Asp	Ile	Lys	Gly	110	115	120	
Ala	Asp	Leu	Lys	Lys	Gly	Lys	Ile	Gln	Gly	Gln	Glu	Leu	Ser	Ala	125	130	135	
Tyr	Gln	Ala	Pro	Ser	Pro	Pro	Ala	His	Ser	Gly	Phe	His	Arg	Tyr	140	145	150	
Gln	Phe	Phe	Val	Tyr	Leu	Gln	Glu	Gly	Lys	Val	Ile	Ser	Leu	Leu	155	160	165	
Pro	Lys	Glu	Asn	Lys	Thr	Arg	Gly	Ser	Trp	Lys	Met	Asp	Arg	Phe	170	175	180	
Leu	Asn	Arg	Phe	His	Leu	Gly	Glu	Pro	Glu	Ala	Ser	Thr	Gln	Phe	185	190	195	
Met	Thr	Gln	Asn	Tyr	Gln	Asp	Ser	Pro	Thr	Leu	Gln	Ala	Pro	Arg	200	205	210	
Gly	Arg	Ala	Ser	Glu	Pro	Lys	His	Lys	Thr	Arg	Gln	Arg	215	220				

<210> 62
 <211> 1321
 <212> DNA
 <213> Homo Sapien

<400> 62

gtcgaccac gcgtccgaag ctgctggagc cagcattcag tcccctggac 50

ttagataaaa gaccctttct tgccagggtgc tgagacaacc acactatgag 100
 aggcaactcca ggagacgctg atggtggagg aagggccgtc tatcaatcaa 150
 tcaactgttgc tgttatcaca tgcaagtatc cagaggctct tgagcaaggc 200
 agaggggagc ccattttattt gggaatccag aatccagaaa tgtgtttgta 250
 ttgtgagaag gttggagaac agcccacatt gcagctaaaa gagcagaaga 300
 tcatggatct gtatggccaa cccgagcccg tgaaaccctt ccttttctac 350
 cgtgccaaaga ctggtaggac ctccaccctt gagtctgtgg ccttcccga 400
 ctggttcatt gcctcctcca agagagacca gcccatcatt ctgacttcag 450
 aacttgggaa gtcatacaac actgcctttg aattaaatat aaatgactga 500
 actcagccta gaggtggcag cttgggtctt gtcttaaagt ttctggttcc 550
 caatgtgttt tcgtctacat tttcttagtg tcattttcac gctggtgctg 600
 agacaggagc aaggctgctg ttatcatctc attttataat gaagaagaag 650
 caattacttc atagcaactg aagaacagga tgtggcctca gaagcaggag 700
 agctgggtgg tataaggctg tcctctcaag ctggtgctgt gtaggccaca 750
 aggcatctgc atgagtgact ttaagactca aagaccaaac actgagcttt 800
 cttctagggg tgggtatgaa gatgcttcag agctcatgcg cgttaccac 850
 gatggcatga ctagcacaga gctgatctct gtttctgttt tgctttattc 900
 cctcttggga tgatatcatc cagtctttat atgttgccaa tatacctcat 950
 tgtgtgtaat agaaccctct tagcattaag accttgtaaa caaaaataat 1000
 tcttgggggtg ggtatgaaga tgcttcagag ctcatgcgcg ttaccacga 1050
 tggcatgact agcacagagc tgatctctgt ttctgttttg ctttattccc 1100
 tcttgggatg atatcatcca gtctttatat gttgccaata tacctcattg 1150
 tgtgtaatag aaccttctta gcattaagac cttgtaaaca aaaataattc 1200
 ttgtgttaag ttaaatacatt tttgtcctaa ttgtaatgtg taatcttaaa 1250
 gttaaataaa ctttgtgtat ttatataata ataaagctaa aactgatata 1300
 aaataaagaa agagtaaact g 1321

<210> 63
 <211> 134
 <212> PRT
 <213> Homo Sapien
 <400> 63

Met	Arg	Gly	Thr	Pro	Gly	Asp	Ala	Asp	Gly	Gly	Gly	Arg	Ala	Val	
1				5					10					15	
Tyr	Gln	Ser	Ile	Thr	Val	Ala	Val	Ile	Thr	Cys	Lys	Tyr	Pro	Glu	
				20					25					30	
Ala	Leu	Glu	Gln	Gly	Arg	Gly	Asp	Pro	Ile	Tyr	Leu	Gly	Ile	Gln	
				35					40					45	
Asn	Pro	Glu	Met	Cys	Leu	Tyr	Cys	Glu	Lys	Val	Gly	Glu	Gln	Pro	
				50					55					60	
Thr	Leu	Gln	Leu	Lys	Glu	Gln	Lys	Ile	Met	Asp	Leu	Tyr	Gly	Gln	
				65					70					75	
Pro	Glu	Pro	Val	Lys	Pro	Phe	Leu	Phe	Tyr	Arg	Ala	Lys	Thr	Gly	
				80					85					90	
Arg	Thr	Ser	Thr	Leu	Glu	Ser	Val	Ala	Phe	Pro	Asp	Trp	Phe	Ile	
				95					100					105	
Ala	Ser	Ser	Lys	Arg	Asp	Gln	Pro	Ile	Ile	Leu	Thr	Ser	Glu	Leu	
				110					115					120	
Gly	Lys	Ser	Tyr	Asn	Thr	Ala	Phe	Glu	Leu	Asn	Ile	Asn	Asp		
				125					130						

<210> 64
 <211> 999
 <212> DNA
 <213> Homo Sapien

<400> 64
 gcgaggctgc accagcgcct ggcaccatga ggacgcctgg gcctctgccc 50
 gtgctgctgc tgctcctggc gggagcccc gccgcgcggc ccaactcccc 100
 gacctgctac tcccgcatgc gggccctgag ccaggagatc acccgcgact 150
 tcaacctcct gcaggtctcg gagccctcgg agccatgtgt gagatacctg 200
 cccaggctgt acctggacat acacaattac tgtgtgctgg acaagctgcg 250
 ggactttgtg gcctcgcccc cgtgttgaa agtggcccag gtagattcct 300
 tgaaggacaa agcacggaag ctgtacacca tcatgaactc gttctgcagg 350
 agagatttgg tattcctgtt ggatgactgc aatgccttgg aatacccaat 400
 cccagtgact acggtcctgc cagatcgtca gcgctaagg aactgagacc 450
 agagaaagaa cccaagagaa ctaaagttat gtcagctacc cagacttaat 500
 gggccagagc catgaccctc acaggtcttg tgtagttgt atctgaaact 550
 gttatgtatc tctctacctt ctggaaaaca gggctggtat tcctaccag 600
 gaacctcctt tgagcataga gttagcaacc atgcttctca ttcccttgac 650

tcattgtcttg ccaggatggt tagatacaca gcatgttgat ttggtcacta 700
aaaagaagaa aaggactaac aagcttcact tttatgaaca actattttga 750
gaacatgcac aatagtatgt ttttattact ggtttaatgg agtaatggta 800
cttttattct ttcttgatag aaacctgctt acatttaacc aagcttctat 850
tatgcctttt tctaacacag actttcttca ctgtctttca tttaaaaaga 900
aattaatgct cttaagatat atattttacg tagtgctgac aggaccact 950
ctttcattga aaggatga aaatcaaata aagaatctct tcacatgga 999

<210> 65
<211> 136
<212> PRT
<213> Homo Sapien

<400> 65
Met Arg Thr Pro Gly Pro Leu Pro Val Leu Leu Leu Leu Ala
1 5 10 15
Gly Ala Pro Ala Ala Arg Pro Thr Pro Pro Thr Cys Tyr Ser Arg
20 25 30
Met Arg Ala Leu Ser Gln Glu Ile Thr Arg Asp Phe Asn Leu Leu
35 40 45
Gln Val Ser Glu Pro Ser Glu Pro Cys Val Arg Tyr Leu Pro Arg
50 55 60
Leu Tyr Leu Asp Ile His Asn Tyr Cys Val Leu Asp Lys Leu Arg
65 70 75
Asp Phe Val Ala Ser Pro Pro Cys Trp Lys Val Ala Gln Val Asp
80 85 90
Ser Leu Lys Asp Lys Ala Arg Lys Leu Tyr Thr Ile Met Asn Ser
95 100 105
Phe Cys Arg Arg Asp Leu Val Phe Leu Leu Asp Asp Cys Asn Ala
110 115 120
Leu Glu Tyr Pro Ile Pro Val Thr Thr Val Leu Pro Asp Arg Gln
125 130 135

Arg

<210> 66
<211> 1893
<212> DNA
<213> Homo Sapien

<400> 66
gtctccgcgt cacaggaact tcagcaccca cagggcggac agcgctcccc 50

tctacctgga gacttgactc ccgcgcgccc caaccctgct tatcccttga 100
ccgtcgagtg tcagagatcc tgcagccgcc cagtcccggc ccctctcccg 150
ccccacaccc accctcctgg ctcttcctgt ttttactcct ccttttcatt 200
cataacaaaa gctacagctc caggagccca gcgccgggct gtgacccaag 250
ccgagcgtgg aagaatgggg ttcctcggga ccggcacttg gattctggtg 300
ttagtgctcc cgattcaagc tttcccaaaa cctggaggaa gccaagacaa 350
atctctacat aatagagaat taagtgcaga aagacctttg aatgaacaga 400
ttgctgaagc agaagaagac aagattaaaa aaacatatcc tccagaaaac 450
aagccaggtc agagcaacta ttcttttggt gataacttga acctgctaaa 500
ggcaataaca gaaaaggaaa aaattgagaa agaaagacaa tctataagaa 550
gctccccact tgataataag ttgaatgtgg aagatgttga ttcaaccaag 600
aatcgaaaac tgatcgatga ttatgactct actaagagtg gattggatca 650
taaatttcaa gatgatccag atggtcttca tcaactagac gggactcctt 700
taaccgctga agacattgtc cataaaatcg ctgccaggat ttatgaagaa 750
aatgacagag ccgtgtttga caagattggt tctaaactac ttaatctcgg 800
ccttatcaca gaaagccaag cacatacact ggaagatgaa gtagcagagg 850
ttttacaaaa attaatotca aaggaagcca acaattatga ggaggatccc 900
aataagccca caagctggac tgagaatcag gctggaaaaa taccagagaa 950
agtgactcca atggcagcaa ttcaagatgg tcttgctaag ggagaaaacg 1000
atgaaacagt atctaacaca ttaaccttga caaatggctt ggaaaggaga 1050
actaaaacct acagtgaaga caactttgag gaactccaat atttcccaaa 1100
tttctatgcg ctactgaaaa gtattgattc agaaaaagaa gcaaaagaga 1150
aagaaacact gattactatc atgaaaacac tgattgactt tgtgaagatg 1200
atggtgaaat atggaacaat atctccagaa gaaggtgttt cctaccttga 1250
aaacttggat gaaatgattg ctcttcagac caaaaacaag ctagaaaaaa 1300
atgctactga caatataagc aagcttttcc cagcaccatc agagaagagt 1350
catgaagaaa cagacagtac caaggaagaa gcagctaaga tggaaaagga 1400
atatggaagc ttgaaggatt ccacaaaaga tgataactcc aaccaggag 1450
gaaagacaga tgaacccaaa ggaaaaacag aagcctattt ggaagccatc 1500

agaaaaaata ttgaatgggt gaagaaacat gacaaaaagg gaaataaaga 1550
 agattatgac ctttcaaaga tgagagactt catcaataaa caagctgatg 1600
 cttatgtgga gaaaggcatc cttgacaagg aagaagccga ggccatcaag 1650
 cgcatttata gcagcctgta aaaatggcaa aagatccagg agtctttcaa 1700
 ctgtttcaga aaacataata tagcttaaaa cacttctaata tctgtgatta 1750
 aaatTTTTTg acccaagggt tattagaaag tgctgaattt acagtagtta 1800
 accttttaca agtggttaaa acatagcttt cttcccgtaa aaactatctg 1850
 aaagtaaagt tgtatgtaag ctgaaaaaaaa aaaaaaaaaa aaa 1893

<210> 67

<211> 468

<212> PRT

<213> Homo Sapien

<400> 67

Met	Gly	Phe	Leu	Gly	Thr	Gly	Thr	Trp	Ile	Leu	Val	Leu	Val	Leu	1	5	10	15
Pro	Ile	Gln	Ala	Phe	Pro	Lys	Pro	Gly	Gly	Ser	Gln	Asp	Lys	Ser	20	25	30	
Leu	His	Asn	Arg	Glu	Leu	Ser	Ala	Glu	Arg	Pro	Leu	Asn	Glu	Gln	35	40	45	
Ile	Ala	Glu	Ala	Glu	Glu	Asp	Lys	Ile	Lys	Lys	Thr	Tyr	Pro	Pro	50	55	60	
Glu	Asn	Lys	Pro	Gly	Gln	Ser	Asn	Tyr	Ser	Phe	Val	Asp	Asn	Leu	65	70	75	
Asn	Leu	Leu	Lys	Ala	Ile	Thr	Glu	Lys	Glu	Lys	Ile	Glu	Lys	Glu	80	85	90	
Arg	Gln	Ser	Ile	Arg	Ser	Ser	Pro	Leu	Asp	Asn	Lys	Leu	Asn	Val	95	100	105	
Glu	Asp	Val	Asp	Ser	Thr	Lys	Asn	Arg	Lys	Leu	Ile	Asp	Asp	Tyr	110	115	120	
Asp	Ser	Thr	Lys	Ser	Gly	Leu	Asp	His	Lys	Phe	Gln	Asp	Asp	Pro	125	130	135	
Asp	Gly	Leu	His	Gln	Leu	Asp	Gly	Thr	Pro	Leu	Thr	Ala	Glu	Asp	140	145	150	
Ile	Val	His	Lys	Ile	Ala	Ala	Arg	Ile	Tyr	Glu	Glu	Asn	Asp	Arg	155	160	165	
Ala	Val	Phe	Asp	Lys	Ile	Val	Ser	Lys	Leu	Leu	Asn	Leu	Gly	Leu	170	175	180	

Ile Thr Glu Ser	Gln Ala His Thr Leu	Glu Asp Glu Val Ala	Glu
	185	190	195
Val Leu Gln Lys	Leu Ile Ser Lys Glu	Ala Asn Asn Tyr Glu	Glu
	200	205	210
Asp Pro Asn Lys	Pro Thr Ser Trp Thr	Glu Asn Gln Ala Gly	Lys
	215	220	225
Ile Pro Glu Lys	Val Thr Pro Met Ala	Ala Ile Gln Asp Gly	Leu
	230	235	240
Ala Lys Gly Glu	Asn Asp Glu Thr Val	Ser Asn Thr Leu Thr	Leu
	245	250	255
Thr Asn Gly Leu	Glu Arg Arg Thr Lys	Thr Tyr Ser Glu Asp	Asn
	260	265	270
Phe Glu Glu Leu	Gln Tyr Phe Pro Asn	Phe Tyr Ala Leu Leu	Lys
	275	280	285
Ser Ile Asp Ser	Glu Lys Glu Ala Lys	Glu Lys Glu Thr Leu	Ile
	290	295	300
Thr Ile Met Lys	Thr Leu Ile Asp Phe	Val Lys Met Met Val	Lys
	305	310	315
Tyr Gly Thr Ile	Ser Pro Glu Glu Gly	Val Ser Tyr Leu Glu	Asn
	320	325	330
Leu Asp Glu Met	Ile Ala Leu Gln Thr	Lys Asn Lys Leu Glu	Lys
	335	340	345
Asn Ala Thr Asp	Asn Ile Ser Lys Leu	Phe Pro Ala Pro Ser	Glu
	350	355	360
Lys Ser His Glu	Glu Thr Asp Ser Thr	Lys Glu Glu Ala Ala	Lys
	365	370	375
Met Glu Lys Glu	Tyr Gly Ser Leu Lys	Asp Ser Thr Lys Asp	Asp
	380	385	390
Asn Ser Asn Pro	Gly Gly Lys Thr Asp	Glu Pro Lys Gly Lys	Thr
	395	400	405
Glu Ala Tyr Leu	Glu Ala Ile Arg Lys	Asn Ile Glu Trp Leu	Lys
	410	415	420
Lys His Asp Lys	Lys Gly Asn Lys Glu	Asp Tyr Asp Leu Ser	Lys
	425	430	435
Met Arg Asp Phe	Ile Asn Lys Gln Ala	Asp Ala Tyr Val Glu	Lys
	440	445	450
Gly Ile Leu Asp	Lys Glu Glu Ala Glu	Ala Ile Lys Arg Ile	Tyr
	455	460	465
Ser Ser Leu			

<210> 68
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 68
cgtcacagga acttcagcac cc 22

<210> 69
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 69
gtcttggtt cctccaggtt tgg 23

<210> 70
<211> 38
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 70
ggacagcgct cccctctacc tggagacttg actcccg 38

<210> 71
<211> 2379
<212> DNA
<213> Homo Sapien

<400> 71
gttgctccgg cggcgctcgg ggagggagcc agcagcctag ggcctaggcc 50
cgggccacca tggcgctgcc tccaggccca gccgccctcc ggcacacact 100
gctgctcctg ccagcccttc tgagctcagg ttggggggag ttggagccac 150
aaatagatgg tcagacctgg gctgagcggg cacttcggga gaatgaacgc 200
cacgccttca cctgccgggt ggcagggggg cctggcacc ccagattggc 250
ctggtatctg gatggacagc tgcaggaggc cagcacctca agactgctga 300
gcgtgggagg ggaggccttc tctggaggca ccagcacctt cactgtcact 350
gcccatcggg ccagcatga gctcaactgc tctctgcagg accccagaag 400
tggccgatca gccaacgcct ctgtcatcct taatgtgcaa ttcaagccag 450

agattgcccc agtcggcgcc aagtaccagg aagctcaggg cccaggcctc 500
 ctggttggtcc tgtttgccct ggtgcgtgcc aaccgcgagg ccaatgtcac 550
 ctggatcgac caggatgggc cagtgactgt caacacctct gacttcctgg 600
 tgctggatgc gcagaactac ccctggctca ccaaccacac ggtgcagctg 650
 cagctccgca gcctggcaca caacctctcg gtgggtggcca ccaatgacgt 700
 ggggtgtacc agtgcgtcgc ttccagcccc agggccctcc cggcacccat 750
 ctctgatatc aagtgactcc aacaacctaa aactcaacaa cgtgcgcctg 800
 ccacgggaga acatgtccct ccggtccaac cttcagctca atgacctcac 850
 tccagattcc agagcagtga aaccagcaga ccggcagatg gctcagaaca 900
 acagccggcc agagcttctg gaccgggagc ccggcggcct cctcaccagc 950
 caaggtttca tccgcctccc agtgctgggc tatactctatc gagtgtccag 1000
 cgtgagcagt gatgagatct ggctctgagc cgagggcgag acaggagtat 1050
 tctcttggtc tctggacacc ctccatttcc tccaaggcat cctctacctc 1100
 gctaggtcac caacgtgaag aagttatgcc actgccactt ttgcttgccc 1150
 tcctggctgg ggtgccctcc atgtcatgca cgtgatgcat ttcactgggc 1200
 tgtaaccgcg aggggcacag gtatctttgg caaggctacc agttggacgt 1250
 aagcccctca tgctgactca ggggtgggcc tgcatgtgat gactgggccc 1300
 ttccagaggg agctctttgg ccaggggtgt tcagatgtca tccagcatcc 1350
 aagtgtggca tggcctgtcg tataccccac ccagtaactc cacagcacct 1400
 tgtacagtag gcatgggggc gtgcctgtgt gggggacagg gagggccctg 1450
 catggatttt ctccttctct atgtatgta gccttggtcc ctcaggtaaa 1500
 atttaggacc ctgctagctg tgcagaacct aattgccctt tgcacagaaa 1550
 ccaaccctg acccagcggc accggccaag cacaacgtc ctttttgctg 1600
 cacacgtctc tgcccttcac ttcttctctt ctgtccccac ctctcttgg 1650
 gaattctagg ttacacgttg gaccttctct actacttcac tgggcactag 1700
 acttttctat tggcctgtgc catcgcccag tattagcaca agttagggag 1750
 gaagaggcag gcgatgagtc tagtagcacc caggacggct tgtagctatg 1800
 catcattttc ctacggcggt agcactttaa gcacatcccc taggggaggg 1850
 ggtgagttag gggcccagag ccctctttgt ggcttcccca cgtttgccct 1900

tctgggattc actgtgagtg tcctgagctc tcgggggttga tggtttttct 1950
 ctcagcatgt ctcctccacc acgggacccc agccctgacc aacccatggt 2000
 tgcctcatca gcaggaaggt gcccttcctg gaggatggtc gccacaggca 2050
 cataattcaa cagtgtggaa gctttagggg aacatggaga aagaaggaga 2100
 ccacataccc caaagtgacc taagaacact ttaaaaagca acatgtaaat 2150
 gattggaaat taatatagta cagaatatat ttttccttg ttgagatctt 2200
 cttttgtaat gtttttcatg ttactgccta gggcgggtgt gagcacacag 2250
 caagtttaat aaacttgact gaattcattt aaaaaaaaaa aaaaaaaaaa 2300
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 2350
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 2379

<210> 72
 <211> 322
 <212> PRT
 <213> Homo Sapien

<400> 72
 Met Ala Leu Pro Pro Gly Pro Ala Ala Leu Arg His Thr Leu Leu
 1 5 10 15
 Leu Leu Pro Ala Leu Leu Ser Ser Gly Trp Gly Glu Leu Glu Pro
 20 25 30
 Gln Ile Asp Gly Gln Thr Trp Ala Glu Arg Ala Leu Arg Glu Asn
 35 40 45
 Glu Arg His Ala Phe Thr Cys Arg Val Ala Gly Gly Pro Gly Thr
 50 55 60
 Pro Arg Leu Ala Trp Tyr Leu Asp Gly Gln Leu Gln Glu Ala Ser
 65 70 75
 Thr Ser Arg Leu Leu Ser Val Gly Gly Glu Ala Phe Ser Gly Gly
 80 85 90
 Thr Ser Thr Phe Thr Val Thr Ala His Arg Ala Gln His Glu Leu
 95 100 105
 Asn Cys Ser Leu Gln Asp Pro Arg Ser Gly Arg Ser Ala Asn Ala
 110 115 120
 Ser Val Ile Leu Asn Val Gln Phe Lys Pro Glu Ile Ala Gln Val
 125 130 135
 Gly Ala Lys Tyr Gln Glu Ala Gln Gly Pro Gly Leu Leu Val Val
 140 145 150
 Leu Phe Ala Leu Val Arg Ala Asn Pro Pro Ala Asn Val Thr Trp
 155 160 165

Ile	Asp	Gln	Asp	Gly	Pro	Val	Thr	Val	Asn	Thr	Ser	Asp	Phe	Leu
				170					175					180
Val	Leu	Asp	Ala	Gln	Asn	Tyr	Pro	Trp	Leu	Thr	Asn	His	Thr	Val
				185					190					195
Gln	Leu	Gln	Leu	Arg	Ser	Leu	Ala	His	Asn	Leu	Ser	Val	Val	Ala
				200					205					210
Thr	Asn	Asp	Val	Gly	Val	Thr	Ser	Ala	Ser	Leu	Pro	Ala	Pro	Gly
				215					220					225
Pro	Ser	Arg	His	Pro	Ser	Leu	Ile	Ser	Ser	Asp	Ser	Asn	Asn	Leu
				230					235					240
Lys	Leu	Asn	Asn	Val	Arg	Leu	Pro	Arg	Glu	Asn	Met	Ser	Leu	Pro
				245					250					255
Ser	Asn	Leu	Gln	Leu	Asn	Asp	Leu	Thr	Pro	Asp	Ser	Arg	Ala	Val
				260					265					270
Lys	Pro	Ala	Asp	Arg	Gln	Met	Ala	Gln	Asn	Asn	Ser	Arg	Pro	Glu
				275					280					285
Leu	Leu	Asp	Pro	Glu	Pro	Gly	Gly	Leu	Leu	Thr	Ser	Gln	Gly	Phe
				290					295					300
Ile	Arg	Leu	Pro	Val	Leu	Gly	Tyr	Ile	Tyr	Arg	Val	Ser	Ser	Val
				305					310					315
Ser	Ser	Asp	Glu	Ile	Trp	Leu								
				320										

<210> 73
 <211> 843
 <212> DNA
 <213> Homo Sapien

<400> 73
 cggggacgga agcgccccct gggcccgagg ggctggagcc gggccggggc 50
 gatgtggagc gcgggccgcg gcggggctgc ctggccggtg ctggtggggc 100
 tgctgctggc gctgttagtg ccgggcggtg gtgccgcaa gaccggtgcg 150
 gagctcgtga cctgcgggtc ggtgctgaag ctgctcaata cgcaccaccg 200
 cgtgcggctg cactgcacg acatcaaata cggatccggc agcggccagc 250
 aatcggtgac cggcgtagag gcgtcggacg acgccaatag ctactggcgg 300
 atccgcggcg gctcggaggg cgggtgcccg cgcgggtccc cgggtgcgctg 350
 cgggcaggcg gtgaggctca cgcattgtgt tacgggcaag aacctgcaca 400
 cgcaccactt cccgtcgcg ctgtccaaca accaggaggt gagtgccttt 450
 ggggaagacg gcgagggcga cgacctggac ctatggacag tgcgctgctc 500

tggacagcac tgggagcgtg aggcctgctgt gcgcttccag catgtgggca 550
 cctctgtgtt cctgtcagtc acgggtgagc agtatggaag ccccatccgt 600
 gggcagcatg aggtccacgg catgccagcgt gccaacacgc acaatacgtg 650
 gaaggccatg gaaggcatct tcatcaagcc tagtgtggag ccctctgcag 700
 gtcacgatga actctgagtg tgtggatgga tgggtggatg gaggggtggca 750
 ggtggggcgt ctgcagggcc actcttggca gagactttgg gttttaggg 800
 gtcctcaagt gcctttgtga ttaaagaatg ttggtctatg aaa 843

<210> 74
 <211> 221
 <212> PRT
 <213> Homo Sapien

<400> 74
 Met Trp Ser Ala Gly Arg Gly Gly Ala Ala Trp Pro Val Leu Leu
 1 5 10 15
 Gly Leu Leu Leu Ala Leu Leu Val Pro Gly Gly Gly Ala Ala Lys
 20 25 30
 Thr Gly Ala Glu Leu Val Thr Cys Gly Ser Val Leu Lys Leu Leu
 35 40 45
 Asn Thr His His Arg Val Arg Leu His Ser His Asp Ile Lys Tyr
 50 55 60
 Gly Ser Gly Ser Gly Gln Gln Ser Val Thr Gly Val Glu Ala Ser
 65 70 75
 Asp Asp Ala Asn Ser Tyr Trp Arg Ile Arg Gly Gly Ser Glu Gly
 80 85 90
 Gly Cys Pro Arg Gly Ser Pro Val Arg Cys Gly Gln Ala Val Arg
 95 100 105
 Leu Thr His Val Leu Thr Gly Lys Asn Leu His Thr His His Phe
 110 115 120
 Pro Ser Pro Leu Ser Asn Asn Gln Glu Val Ser Ala Phe Gly Glu
 125 130 135
 Asp Gly Glu Gly Asp Asp Leu Asp Leu Trp Thr Val Arg Cys Ser
 140 145 150
 Gly Gln His Trp Glu Arg Glu Ala Ala Val Arg Phe Gln His Val
 155 160 165
 Gly Thr Ser Val Phe Leu Ser Val Thr Gly Glu Gln Tyr Gly Ser
 170 175 180
 Pro Ile Arg Gly Gln His Glu Val His Gly Met Pro Ser Ala Asn
 185 190 195

Thr His Asn Thr Trp Lys Ala Met Glu Gly Ile Phe Ile Lys Pro
 200 205 210

Ser Val Glu Pro Ser Ala Gly His Asp Glu Leu
 215 220

<210> 75
 <211> 1049
 <212> DNA
 <213> Homo Sapien

<400> 75
 gttgctatgt tgcccaggct ggtcttgaag tgccttgacc tcctaaagtg 50
 ttggaaccac agacgtgagc cactccaccc agcctaaaac ttcattcttct 100
 ttggatgaga tgaacacttt taacaagaga acaggactct atataaatcg 150
 ctgtgggctc accacctcta aggaggagca ctgactgaag acagaaaaat 200
 tgatgaactg aagaagacat ggtccattat gccttacaaa cttacacagt 250
 gctttgggaa ttccaaagta ctcaagtggag agaggtgttt caggagccgt 300
 agagccagat cgtcacatg tctgcattgt ggctgctgct gggcctcctt 350
 gccctgatgg acttgtctga aagcagcaac tggggatgct atggaaacat 400
 ccaaagcctg gacaccctg gagcatcttg tgggattgga agacgtcacg 450
 gcctgaacta ctgtggagtt cgtgcttctg aaaggctggc tgaaatagac 500
 atgccatacc tctgaaata tcaaccatg atgcaaacca ttggccaaaa 550
 gtactgcatg gatcctgccg tgatcgctgg tgtcttgtcc aggaagtctc 600
 ccggtgacaa aattctggtc aacatgggcg ataggactag catggtgcag 650
 gaccctggct ctcaagctcc cacatcctgg attagtgagt ctcaggtttc 700
 ccagacaact gaagttctga ctactagaat caaagaaatc cagaggaggt 750
 ttccaacctg gaccctgac cagtacctga gaggtggact ctgtgcctac 800
 agtgggggtg ctggctatgt ccgaagcagc caggacctga gctgtgactt 850
 ctgcaatgat gtccttgac gagccaagta cctcaagaga catggcttct 900
 aacatctcag atgaaacca agaccatgat cacatatgca gcctcaaatg 950
 ttacacagat aaaactagcc aagggcacct gtaactggga atctgagttt 1000
 gacctaaaag tcattaaaat aacatgaatc ccattaaaaa aaaaaaaaaa 1049

<210> 76
 <211> 194
 <212> PRT
 <213> Homo Sapien

<400> 76

Met	Ser	Ala	Leu	Trp	Leu	Leu	Leu	Gly	Leu	Leu	Ala	Leu	Met	Asp
1				5					10					15
Leu	Ser	Glu	Ser	Ser	Asn	Trp	Gly	Cys	Tyr	Gly	Asn	Ile	Gln	Ser
				20					25					30
Leu	Asp	Thr	Pro	Gly	Ala	Ser	Cys	Gly	Ile	Gly	Arg	Arg	His	Gly
				35					40					45
Leu	Asn	Tyr	Cys	Gly	Val	Arg	Ala	Ser	Glu	Arg	Leu	Ala	Glu	Ile
				50					55					60
Asp	Met	Pro	Tyr	Leu	Leu	Lys	Tyr	Gln	Pro	Met	Met	Gln	Thr	Ile
				65					70					75
Gly	Gln	Lys	Tyr	Cys	Met	Asp	Pro	Ala	Val	Ile	Ala	Gly	Val	Leu
				80					85					90
Ser	Arg	Lys	Ser	Pro	Gly	Asp	Lys	Ile	Leu	Val	Asn	Met	Gly	Asp
				95					100					105
Arg	Thr	Ser	Met	Val	Gln	Asp	Pro	Gly	Ser	Gln	Ala	Pro	Thr	Ser
				110					115					120
Trp	Ile	Ser	Glu	Ser	Gln	Val	Ser	Gln	Thr	Thr	Glu	Val	Leu	Thr
				125					130					135
Thr	Arg	Ile	Lys	Glu	Ile	Gln	Arg	Arg	Phe	Pro	Thr	Trp	Thr	Pro
				140					145					150
Asp	Gln	Tyr	Leu	Arg	Gly	Gly	Leu	Cys	Ala	Tyr	Ser	Gly	Gly	Ala
				155					160					165
Gly	Tyr	Val	Arg	Ser	Ser	Gln	Asp	Leu	Ser	Cys	Asp	Phe	Cys	Asn
				170					175					180
Asp	Val	Leu	Ala	Arg	Ala	Lys	Tyr	Leu	Lys	Arg	His	Gly	Phe	
				185					190					

<210> 77

<211> 899

<212> DNA

<213> Homo Sapien

<400> 77

ttgaaaatct acttatcag ctgctgtggt tgccaccatt ctcaggaccc 50
tcgccatgaa agcccttatg ctgctcacc tgtctgttct gctctgctgg 100
gtctcagctg acattcgctg tcaactcctgc tacaagggtcc ctgtgctggg 150
ctgtgtggac cggcagtcct gccgcctgga gccaggacag caatgcctga 200
caacacatgc ataccttggt aagatgtggg ttttctccaa tctgcgctgt 250
ggcacaccag aagagccctg tcaggaggcc ttcaaccaa ccaaccgcaa 300

gctgggtctg acatataaca ccacctgctg caacaaggac aactgcaaca 350
 gcgcaggacc ccggcccact ccagccctgg gccttgtctt ccttacctcc 400
 ttggctggcc ttggcctctg gctgctgcac tgagactcat tccattggct 450
 gcccctcctc ccacctgcct tggcctgagc ctctctccct gtgtctctgt 500
 atccccctggc ttacagaat cgtctctccc tagctcccat ttctttaatt 550
 aaacactggt ccgagtgggc tcctcatcca tccttcccac ctcacaccct 600
 tcactctcct ttttctgggt cccttcccac ttccttccag gacctccatt 650
 ggctcctaga agggctcccc actttgcttc ctatactctg ctgtccccta 700
 cttgaggagg gattgggata tgggcctgaa atggggcttc tgtgttgtcc 750
 ccagtgaagg cccccacaag gacctgatga cctcactgta cagagctgac 800
 tccccaaacc caggetccca tatgtacccc atccccata ctcacctctt 850
 tccattttga gtaataaatg tctgagtctg gaaaaaaaaa aaaaaaaaaa 899

<210> 78

<211> 125

<212> PRT

<213> Homo Sapien

<400> 78

Met	Lys	Ala	Leu	Met	Leu	Leu	Thr	Leu	Ser	Val	Leu	Leu	Cys	Trp
1				5					10					15

Val	Ser	Ala	Asp	Ile	Arg	Cys	His	Ser	Cys	Tyr	Lys	Val	Pro	Val
				20					25					30

Leu	Gly	Cys	Val	Asp	Arg	Gln	Ser	Cys	Arg	Leu	Glu	Pro	Gly	Gln
				35					40					45

Gln	Cys	Leu	Thr	Thr	His	Ala	Tyr	Leu	Gly	Lys	Met	Trp	Val	Phe
				50					55					60

Ser	Asn	Leu	Arg	Cys	Gly	Thr	Pro	Glu	Glu	Pro	Cys	Gln	Glu	Ala
				65					70					75

Phe	Asn	Gln	Thr	Asn	Arg	Lys	Leu	Gly	Leu	Thr	Tyr	Asn	Thr	Thr
				80					85					90

Cys	Cys	Asn	Lys	Asp	Asn	Cys	Asn	Ser	Ala	Gly	Pro	Arg	Pro	Thr
				95					100					105

Pro	Ala	Leu	Gly	Leu	Val	Phe	Leu	Thr	Ser	Leu	Ala	Gly	Leu	Gly
				110					115					120

Leu	Trp	Leu	Leu	His
				125

<210> 79

<211> 1977
<212> DNA
<213> Homo Sapien

<400> 79

acgggcccga gcggcagtga cgtaggggtg gcgcacggat ccgttgcggc 50
tgcagctctg cagtcggggc gttccttcgc cgccgccagg ggtagcgggtg 100
tagctgcgca gcgtcgcgcg cgctaccgca cccagggttcg gcccgtaggc 150
gtctggcagc ccggcgccat cttcatcgag cgccatggcc gcagcctgcg 200
ggccgggagc ggccgggtac tgcttgctcc tcggcttgca tttgtttctg 250
ctgaccgcgg gccctgccct gggctggaac gaccctgaca gaatgttgct 300
gcgggatgta aaagctctta cctccacta tgaccgctat accacctccc 350
gcaggctgga tcccatccca cagttgaaat gtgttgaggg cacagctggg 400
tgtgattctt ataccccaaa agtcatacag tgtcagaaca aaggctggga 450
tgggtatgat gtacagtggg aatgtaagac ggacttagat attgcataca 500
aatttgaaaa aactgtggtg agctgtgaag gctatgagtc ctctgaagac 550
cagtatgtac taagagggtc ttgtggcttg gagtataatt tagattatac 600
agaacttggc ctgcagaaac tgaaggagtc tggaaagcag cacggctttg 650
cctctttctc tgattattat tataagtggg cctcggcgga ttcctgtaac 700
atgagtggat tgattaccat cgtgggtactc cttgggatcg cttttgtagt 750
ctataagctg ttcttgagtg acgggcagta ttctcctcca ccgtactctg 800
agtatcctcc attttccac cgtaaccaga gattcaccaa ctacgcagga 850
cctcctcccc caggctttaa gtctgagttc acaggaccac agaatactgg 900
ccatggtgca acttctgggt ttggcagtg ttttacagga caacaaggat 950
atgaaaattc aggaccaggg ttctggacag gcttggaac tgggtggaata 1000
ctaggatatt tgtttggcag caatagagcg gcaacaccct tctcagactc 1050
gtggtactac ccgtcctatc ctccctccta ccctggcacg tggaataggg 1100
cttactcacc cttcatgga ggctcgggca gctattcggg atgttcaaac 1150
tcagacacga aaaccagaac tgcatacagga tatggtggta ccaggagacg 1200
ataaagtaga aagttggagt caaacactgg atgcagaaat tttggatttt 1250
tcatcacttt ctcttttagaa aaaaagtact acctgttaac aattgggaaa 1300
aggggatatt caaaagttct gtggtgttat gtccagtgtg gctttttgta 1350

ttctattatt tgaggctaaa agttgatgtg tgacaaaata cttatgtgtt 1400
 gtatgtcagt gtaacatgca gatgtatatt gcagtttttg aaagtgatca 1450
 ttactgtgga atgctaaaaa tacattaatt tctaaaacct gtgatgccct 1500
 aagaagcatt aagaatgaag gtgttggtact aatagaaaact aagtacagaa 1550
 aatttcagtt ttaggtgggt gtagctgatg agttattacc tcatagagac 1600
 tataatattc tatttggtat tatattattht gatgtttgct gttcttcaaa 1650
 catttaaattc aagctttgga ctaattatgc taattttgtga gttctgatca 1700
 cttttgagct ctgaagcttt gaatcattca gtggtggaga tggccttctg 1750
 gtaactgaat attaccttct gtaggaaaag gtggaaaata agcatctaga 1800
 aggttggtgt gaatgactct gtgctggcaa aaatgcttga aacctctata 1850
 tttctttcgt tcataagagg taaagggtcaa atttttcaac aaaagtcttt 1900
 taataacaaa agcatgcagt tctctgtgaa atctcaaata ttgttgtaat 1950
 agtctgtttc aatcttaaaa agaata 1977

<210> 80

<211> 339

<212> PRT

<213> Homo Sapien

<400> 80

Met	Ala	Ala	Ala	Cys	Gly	Pro	Gly	Ala	Ala	Gly	Tyr	Cys	Leu	Leu	1	5	10	15
Leu	Gly	Leu	His	Leu	Phe	Leu	Leu	Thr	Ala	Gly	Pro	Ala	Leu	Gly	20	25	30	
Trp	Asn	Asp	Pro	Asp	Arg	Met	Leu	Leu	Arg	Asp	Val	Lys	Ala	Leu	35	40	45	
Thr	Leu	His	Tyr	Asp	Arg	Tyr	Thr	Thr	Ser	Arg	Arg	Leu	Asp	Pro	50	55	60	
Ile	Pro	Gln	Leu	Lys	Cys	Val	Gly	Gly	Thr	Ala	Gly	Cys	Asp	Ser	65	70	75	
Tyr	Thr	Pro	Lys	Val	Ile	Gln	Cys	Gln	Asn	Lys	Gly	Trp	Asp	Gly	80	85	90	
Tyr	Asp	Val	Gln	Trp	Glu	Cys	Lys	Thr	Asp	Leu	Asp	Ile	Ala	Tyr	95	100	105	
Lys	Phe	Gly	Lys	Thr	Val	Val	Ser	Cys	Glu	Gly	Tyr	Glu	Ser	Ser	110	115	120	
Glu	Asp	Gln	Tyr	Val	Leu	Arg	Gly	Ser	Cys	Gly	Leu	Glu	Tyr	Asn	125	130	135	

Leu	Asp	Tyr	Thr	Glu	Leu	Gly	Leu	Gln	Lys	Leu	Lys	Glu	Ser	Gly	140	145	150
Lys	Gln	His	Gly	Phe	Ala	Ser	Phe	Ser	Asp	Tyr	Tyr	Tyr	Lys	Trp	155	160	165
Ser	Ser	Ala	Asp	Ser	Cys	Asn	Met	Ser	Gly	Leu	Ile	Thr	Ile	Val	170	175	180
Val	Leu	Leu	Gly	Ile	Ala	Phe	Val	Val	Tyr	Lys	Leu	Phe	Leu	Ser	185	190	195
Asp	Gly	Gln	Tyr	Ser	Pro	Pro	Pro	Tyr	Ser	Glu	Tyr	Pro	Pro	Phe	200	205	210
Ser	His	Arg	Tyr	Gln	Arg	Phe	Thr	Asn	Ser	Ala	Gly	Pro	Pro	Pro	215	220	225
Pro	Gly	Phe	Lys	Ser	Glu	Phe	Thr	Gly	Pro	Gln	Asn	Thr	Gly	His	230	235	240
Gly	Ala	Thr	Ser	Gly	Phe	Gly	Ser	Ala	Phe	Thr	Gly	Gln	Gln	Gly	245	250	255
Tyr	Glu	Asn	Ser	Gly	Pro	Gly	Phe	Trp	Thr	Gly	Leu	Gly	Thr	Gly	260	265	270
Gly	Ile	Leu	Gly	Tyr	Leu	Phe	Gly	Ser	Asn	Arg	Ala	Ala	Thr	Pro	275	280	285
Phe	Ser	Asp	Ser	Trp	Tyr	Tyr	Pro	Ser	Tyr	Pro	Pro	Ser	Tyr	Pro	290	295	300
Gly	Thr	Trp	Asn	Arg	Ala	Tyr	Ser	Pro	Leu	His	Gly	Gly	Ser	Gly	305	310	315
Ser	Tyr	Ser	Val	Cys	Ser	Asn	Ser	Asp	Thr	Lys	Thr	Arg	Thr	Ala	320	325	330
Ser	Gly	Tyr	Gly	Gly	Thr	Arg	Arg	Arg							335		